a. 6

-1-

e. 4 4

d. 1 1

PRINT Name:		_ LAB Section:	5.	Which command counts lines with two adjacent asterisk characters (**) inside the file?
One-Answer Multiple Choice 34	7 Questions	Weight 15%		a. find file -name ** b. fgrep -c '**' file
Read all the words of these instructions and both sides (back and front) of all pages. Manage your time. Answer questions you know, first. One Answer per question. PRINT your Name and Lab on this Question Sheet. You may write or draw on this sheet. Use your full, unabbreviated name on the mark-sense form. Do not abbreviate your name.			6.	c. fgrep -c ** file d. find -c ** file e. find file -name '**' File a contains 2 lines. File b contains 3 lines. How many lines are output on your screen by this: cp b a head
Enter your NAME, Student Number, and Answers. Fill in the bubbles with pencil, no pen. The answer to the questions below about reading/doing all these test instructions is: Jes			a. 3 b. 3 followed by 2 c. 2 followed by 3 d. 2 e. no output	
191. Answer 191 is 192. Answer 192 is 193. Answer 193 is 194. Answer 194 is 195. Answer 195 is 196. Answer 196 is	six answers 191 th		7. 8.	Which of the following is true, given this long directory listing: drwxr-xx 128 me me 32 Jan 1 1:00 dir a. The number 128 is the size of this directory. b. The number 32 is the size of this directory. c. The number 32 is the count of links (names) this directory has. d. The number 32 is the inode number of this directory. e. The number 128 is the inode number of this directory. How many arguments are passed to the command by the shell:
 Did you read all the words of the a. Taip (Yes - Lithuanian) c. Sim (Yes - Portuguese) e. Tak (Yes - Polish) 	$\it b$. Jes	n page one? (Yes - Esperanto) (Yes - Hungarian)	9.	\$ \$ \$ d. 7 & b. 6 & c. 5 & d. 3 & e. 4 File a contains 2 lines. File b contains 3 lines. How many lines are output on your screen by this: cat a echo b
 My three-digit Lab Section number. a. My lecture Section Number, i.e. b. My lab room number, e.g. P21 	. 010, 020 0, P213, B119		10.	a. 5 b. no output c. 2 d. 1 e. 3 What is in file c after this: echo B >b; ln b a; echo A >a; ln a c; rm a b
d. My lecture room number, i.e. Ce. The timetable Section Number	c. The Test Version code printed on the question sheet. d. My lecture room number, i.e. C346 , T119 e. The timetable Section Number of my weekly 2-hour lab period.		 a. B b. A c. A followed by B d. no such file (nonexistent) e. nothing (empty file) 	
 If you are in /bin and ls -l sh dereference the absolute path of for a. /bin/dir/bar/foo c. /bin/foo/dir/bar e. /bin/dir/bar 	oo with no symbolic	c links: /dir/bar		What is the link count of directory a after these successful commands? mkdir a; mkdir a/b; mkdir a/c; mkdir a/b/c a. 2 b. 5 c. 3 d. 4 e. 1 If directory dir contains four three-character file names: .aa, .ab, .a?, .a*,
4. If mt is an empty sub-directory, w touch mt/bar; mkdir a. the directory mt is now empty b. the command fails because the c. there is a second copy of the fil d. the mkdir fails because bar a	name mt//bar e bar in the file nar	bar mt//bar/me /me does not exist	12	then what is the output on your screen of this: echo dir/??? a. no output b. dir/.aa dir/.ab c. dir/??? d. dir/.aa dir/.ab dir/.a? dir/.a* e. dir/.a?

e. the directory mt now contains only a file named me

13. File **foo** contains 9 lines, each of which is the one-digit line number of the line in

c. 8

the file (1 through 9). What is the output on your screen of this: sort foo foo | tail -n 4 | head -n 1

b. 6 6

-2-

14.		2 lines. File b contain			nes are output on your
	screen by this:	echo a ; cat b	echo	a	
	a. 5	b. no ou	tput	с.	3

-3-

d. 1

15. What command will recursively show disk usage in directories?

e. 2

b. df

c. find

e. 1s

16. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: cp a b >z; cp a b >a; sort a b z >c a. 9 b. 7 c. 6 e. 8

17. In an empty directory, what is the output on your screen after this:

touch A a ; echo * >"*" ; ls

a. A a >A a

b. No output

d. A a >*

e. * A a

18. In an empty directory, how many arguments are passed to the cat command in this: touch a1 a2 ba ca; cat a* a. 2 h. 1 d. 3 e. none

19. If directory /a contains seven two-character names; aa, ab, ac, ad, a*, a?, ??, then which removes *only* the single two-character name **a**? from the directory?

a. rm '/a/a?'

b. rm /a/?\?

c. rm /a/a?

d. rm "/a?"

e. rm /a\?

20. In an empty directory, how many words are in file pig after this:

touch pig pig ; ls >pig

a. 1 h 3 c. 2

d 4

e. 0

21. File **foo** contains 99 lines, each of which is the two-digit line number of the line in the file (01 through 99). What is the output on your screen of this:

sort foo foo | tail -n 4 | head -n 1

a. 01 01 d. 96

b. 98 e. 96 96 c. 04 04

22. File a contains 2 lines. File b contains 3 lines. How many lines are in file d (not in **c**) after this:

ln ad; ln dc; ln ce; cat a abbccddee >c

b. 2 a. 6 c. 10 d. 18 e. 21 23. If directory /a contains seven two-character names: aa, ab, ac, ad, a?, a*, **a.**, then which removes *only* the single two-character name **a*** from the directory?

a. rm /a/a*

b. rm /a*

c. rm /a/*

d. rm /a/a*

e. rm /a/a?

24. Which tells you the recursive count of all pathnames under the current directory and

all subdirectories? a. ls | wc

b. wc .

C. WC *

d. find | wc

e. wc "\$PWD"

25. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: ln a d; ln d c; cat a b >c

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a. 0

b. 5

c. 4

d. 2

e. 3

26. In an empty directory, what is the output on your screen after this:

touch a b .1 .2; echo .??*

a. an error message from **echo** saying .??* does not exist

b. .??*

c. . .. a b .1 .2

d. 2

e. a b

27. Which can generate a non-empty file?

a. cat foo >foo

b. sort foo >foo

c. ls foo >foo

d. tail foo >foo

e. fgrep 'foo' foo >foo

28. In an empty directory, what is the output on your screen after this:

ls 1>/dev/null nosuchfile

a. ls: /dev/null: No such file or directory

b. nosuchfile

c. no output

d. ls: nosuchfile: No such file or directory

e. ls: 1>/dev/null nosuchfile: No such file or directory

29. How many arguments are passed to the command by the shell:

\$ echo " 1 '2 3' 4 "5 6 ' 7 "8 ' >out

a. 5

h. 4

c. 2

d. 6

e. 3

30. What displays on your screen given this command:

date >date ; pwd >pwd ; head date | tail pwd

a. only the date displays because tail ignores the pipe

b. only the pwd displays because tail ignores the pipe

c. nothing displays because tail ignores the pipe

d. head displays the date and tail displays the pwd

e. tail reads the pipe and the pwd and displays both together

31. File a contains 2 lines. File b contains 3 lines. How many lines are in file out after this: cat a b >c ; head c >c ; sort a b c >out

a. 6

h. 10

c. 5

d. 0

e. 3

32. If I am in directory /tmp and mt is an empty sub-directory, what is true after this: touch mt/bar; mkdir mt/me; cp mt/bar mt/../me

a. there is a second copy of the file bar in file /tmp/me

b. there is a second copy of the file bar in directory mt

c. the directory **mt** is now empty

d. the directory **mt** now contains only a file named **me**

e. the command fails because the name mt/../me does not exist

33. File **foo** contains 99 lines, each of which is the two-digit line number of the line in the file (01 through 99). What is the output on your screen of this:

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sort -r foo foo | tail -n 4 | head -n 1 a. **04 04** b. 98 c. 96 96 d. 02 e. 96

34. In a directory containing one file named **mt**, what is the output on your screen after this: 1s 2>/dev/null nosuchfile

a. bash: 2>/dev/null: command not found

b. no output

c. nosuchfile

d. ls: nosuchfile: No such file or directory

35. In an empty directory, how many arguments are passed to the **rm** command in this:

touch a a1 a2 ba ca; rm a* a. 2 h. 3 c. none

d. 4 36. Which of the following **PATH** statements makes the most sense?

a. PATH=/bin/bash:/usr/bin:/bin

b. PATH=/bin:/etc/passwd:/usr/bin

c. PATH=/bin:/usr/bin:/etc/passwd

d. PATH=/bin:/usr/bin

e. PATH=/bin/ls:/etc/passwd:/usr/bin

37. What is the output on your screen after this:

mkdir dir ; touch dir/.aa dir/.bb ; echo dir/*

a. dir/*

b. dir/. dir/.. dir/.aa dir/.bb

c. dir/.aa dir/.bb

d. dir/

e. no output

38. How many files are touched? touch 1 "2 3

b. 1

c. 5

d. 4

e. 3

e. 1

39. What is the output of this in an empty directory: cat *

a. .

b. no output

c. *

d. an error message from cat saying * does not exist

40. What is the link count of file **f** after these successful commands?

rm f ; touch f ; ln f bar cp bar x ; ln x y ; ln bar z

a. 3

b. 4

c. 5

d. 1

e. 2

41. How many arguments are passed to the command by the shell:

\$ <foo foo " a 'b c' d " e ' f " q " ' >foo h b. 5 c. 4 d. 3 a. 6 e. 2

-6-

42. How do you execute the program **foo** in the current directory?

a. /foo

b. SHOME/foo e. foo/.

c. foo/

d. ./foo

43. Which shows just the count of words in the file?

a. wc file awk '{print #2}' b. wc file | awk '[print #2]' c. wc file awk '{print 2}' d. wc file awk '[print \$2]' e. wc file | awk '{print \$2}'

44. File a contains 2 lines. File b contains 3 lines. How many lines are output on your screen by this: cat a b | pwd

a. 6 d. 3

b. no output e. 1

c. 5

45. Which of these will make file **foo** contain all of the content of file **a** followed by all of the content of file **b**?

a. cp a b >foo

b. my a b >foo

c. echo a b >foo

d. cat a >foo ; cat b >>foo

e. cp a >foo ; cp b >>foo

46. In an empty directory, what is the output on your screen after this:

echo hi >a ; ls | wc -w

a. 1 d. a b. 2 e. no output c. 0

47. What is the output of this in an empty directory:

touch x .a .ab .cde .fghi ; echo .??*

a. .cde .fqhi

b.a .ab .cde .fghi

c. .??*

d. .ab .cde .fghi

e. an error message from echo saying .??* does not exist

48. What is the output on your screen after this:

echo hi >ls ; cat ls > wc

a. 1s

b. no output

c. 1 1 2

d. 1 1 3

e. hi

49. File **a** contains 2 lines. File **b** contains 3 lines. How many lines are output on your screen by this: sort a b | cat a | cat

a. 7

b. 6

c. 2

d. 0

e. 4

-7-

-8-

50. If /bin/foo is a program that outputs mom and /usr/bin/foo is a program 59. What is the output on your screen after these command lines: that outputs **dad**, what is the output on your screen after this: echo one >x ; ln x y ; echo ten >y PATH=/dev:/usr/bin:/usr:/bin:/etc; /bin/foo echo two >x ; cat y a. one followed by ten and two b. one a. mom b. dad c. two d. no output on screen c. dad followed by mom e. ten d. bash: /bin/foo: command not found 60. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after e. mom followed by dad this: sort a b >c ; cat a >>b ; sort c b >c a 51. In an empty directory, what is the output on your screen after this: b. 0 a. 5 c. 7 e. 12 touch a ; ls | wc -w 61. In an empty directory, how many words are in file **a** after this: *a*. 3 b. no output c. 0 echo It's redirected >b isn't it\? : ls >a d. 1 e. 2 *a*. 0 b. 3 c. 2 d. 4 e. 1 52. In an empty directory, how many arguments are passed to the wc command in this: 62. How many files are touched? touch '1 "2 3 '4'" '5 touch xx yy >zz 123 .a b.; wc ?? a. 5 b. 4 d. 2 e. 1 d. 1 a. 5 h 4 c. 2 e. 0 63. How many arguments are passed to the command by the shell: 53. File a contains 2 lines. File b contains 3 lines. How many lines are output on your \$ echo 'And it's not hard, it's just logical.' screen by this: echo a ; echo b h. 7 c. **5** d. 6 a. 4 e. 3 a. no output b. 2 c. 5 64. If your **PATH** variable contains /bin:/usr/bin, what is the output of this: d. 3 e. 1 echo '\$PATH' 54. Which command recursively finds all things with names beginning with **foo**? a. echo: \$PATH: No such file or directory h 1s foo* a. 1s -name foo* b. '/bin:/usr/bin' c. fgrep -name foo? d. find -name foo? c. SPATH e. find -name 'foo*' d. /bin:/usr/bin 55. What is the resulting link count of empty directory **dir** after these successful e. 'SPATH' commands? cd dir; touch foo; ln foo one; ln foo two 65. What is the link count of directory **z** after these successful commands? *a*. 5 h. 2 d. 1 c. 3 e. 4 mkdir z ; mkdir z/a ; touch z/b z/c z/d 56. What is the output on your screen after this: a. 5 b. 2 c. 3 d. 4 e. 1 echo 1 >x ; ln x y ; echo 2 >>y ; sort x 66. File **foo** contains 9 lines, each of which is the one-digit line number of the line in b. 1 a. no output c. 1 followed by 2 the file (1 through 9). What is the output on your screen of this: *d.* **2** followed by **1** e. 2 sort foo foo | tail -n 5 | head -n 1 b. 9 c. 5 5 d. 1 57. If your terminal type is **xterm**, what is the output of this: **echo** '**\$TERM**' a. 1 1 e. 7 a. \$TERM b. xterm 67. In an empty directory, what is in file **count** after this: c. no output on screen d. 'STERM' ls ??? | wc -w >count e. 'xterm' *a.* nothing (empty file) b. 1 1 1 *d*. 0 58. Which command pipeline outputs the count of the number of manual page titles that c. 1 contain the keyword "sort"? e. 1 1 2 a. wc man sort b. man sort | wc 68. What is the link count of file **f** after these successful commands? d. man sort ; wc c. wc -k sort rm f; touch f; ln f bar; ln bar x e. man -k sort | wc cp bar a ; ln a b ; ln x c ; cp c d a. 1 b. 5 c. 4 d. 3 e. 2

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1 Minute Per Question

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69.	What is the output on your screen after this: echo hi >a; ls a > wc	77.	How many lines are in the file bar after this: echo hi >x ; echo ho >>x ; cat x x >bar
	a. 1 1 2 b. no output c. 1 1 3		a. 4 b. 2 c. 6 d. 0 e. 1
	d. 3 e. 2	78.	Which command line has exactly one argument?
70.	Create a symbolic link under /usr named bar that has target xy:		a. echo 'It's "'funny how'" it's done.'
	<pre>a. ln -s '/usr/xy' /usr/bar</pre>		b. echo "It's "'funny how' " it's done."
	b. ln -s /usr/bar 'xy'		c. echo "It's " 'funny how'" it's done."
	c. ln -s 'xy' /bar/usr		d. echo 'It's "funny how" it's done.'
	d. ln -s 'xy' '/usr/bar'		e. echo "It's "'funny how'" it's done."
	e. ln -s /usr/bar '/usr/xy'	79.	If your PATH contained only the file names /bin/sh, /bin/cat, and
71.	File a contains 2 lines. File b contains 3 lines. How many lines are output on your		/bin/ls, then what is the output on your screen of this: cat /etc/passwd
	screen by this: cat a sort b		a. bash: /bin/sh: command not found
	a. 2 b. 5 c. 4 d. 3 e. 0		b. cat: /etc/passwd: command not found
72.	How many arguments are passed to the command by the shell:		c. bash: cat: command not found
	\$ <wc "="" '="" '2="" 1="" 3'="" 4="" 5="" 6="" 7="" 8="" wc="">wc 9</wc>		d. bash: /bin/cat: no such file or directory
	a. 6 b. 2 c. 5 d. 3 e. 4		<pre>e. cat: bash: no such file or directory</pre>
73.	How many words are in file out after this:	80.	What is the link count of directory z after these successful commands?
	echo one >two >three >out		mkdir z ; cd z ; touch a ; ln a b ; ln a c
	a. 4 b. 0 c. 2 d. 3 e. 1		a. 2 b. 5 c. 1 d. 4 e. 3
74.	If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:	81.	In an empty directory, what is the output on your screen after this: touch 1 2 3; cow="*"; echo "\$cow"
	111 -rw-rr 1 me me 100 Jan 1 1:00 a		a. * b. \$cow c. "1 2 3"
	222 -rw-rr- 3 me me 100 Jan 1 1:00 b		d. "\$cow" e. 1 2 3
	222 -rw-rr 3 me me 100 Jan 1 1:00 c	82.	Which command recursively finds all things named foo ?
	222 -rw-rr- 3 me me 100 Jan 1 1:00 d		a. find -name foo b. cat -name foo
	a. 3 b. 2 c. 0 d. 1 e. 4		c. echo -name foo d . fgrep -name foo
75.			e. 1s -name foo
	remove these four file names:	83.	In an empty directory, what is in file out after this:
	111 -rw-r 1 me me 100 Jan 1 1:00 a		ls nosuchfile wc -w >out
	222 -rw-rr 1 me me 100 Jan 1 1:00 b 333 -rw-rr 1 me me 100 Jan 1 1:00 c		a. nothing (empty file) b. nosuchfile
	444 -rw-r 1 me me 100 Jan 1 1:00 C		c. out d. 1

e. 0

a. 1

b. 2

a. create one file named /1/22
b. create a directory named /1/2
c. create a directory named /1/22
d. create one file named /1/2/3
e. create a directory named /1/2/3

a. 0

exactly one?

c. 4

76. If I have a directory named /1/2, which action would increase its *link count* by

d. 1

e. 3

1 Minute Per Question

84. In an empty directory, how many words are in file $\bf c$ after this:

c. 2

d. 4

touch a b 1 b a; ls >c

b. 0

e. 3

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85. What is true about this output from ls -il foo bar?
                                                                                  92. Which of the following statements is true about this:
     15 -rwxrwxrwx 2 bin bin 3 Jul 31 12:33 foo
                                                                                           $ <dir/c cat dir/d</pre>
     15 -rwxrwxrwx 3 bin bin 3 Jul 31 12:33 bar
                                                                                       a. The command is always invalid.
    a. this output is not possible
                                                                                       b. The command cat sees two arguments.
    b. foo and bar are two of three names for the same file
                                                                                       c. The command cat sees only one argument.
    c. foo and bar are names for different files
                                                                                       d. The command dir/c sees two arguments.
    d. foo and bar each have three names (six names total)
                                                                                       e. The command dir/c sees only one argument
    e. foo and bar are names for the same file
                                                                                  93. What is the output of this in an empty directory:
                                                                                           touch a .a bc .bc def; echo [ab] *
86. What is the output on your screen of this unquoted command line:
         mkdir a ; touch b a/b1 a/b2 ; find a -name b*
                                                                                       a. a .a bc .bc
    a. no output
                              b. b
                                                       c. b a/b1 a/b2
                                                                                       b. a bc
    d. b1 b2
                              e. a/b1 a/b2
                                                                                       c. [ab]*
87. How many files are touched? touch 1 "2 3" ' 4 ' 5
                                                                                       d. an error message from echo saying [ab] * does not exist
                                                                                       e. no output
    a. 3
                    b. 5
                                   c. 6
                                                  d. 7
                                                                 e. 4
                                                                                  94. What is the possible output on your screen of this:
88. What is the link count of directory dir after these successful commands?
                                                                                           echo wc >date ; sort date >date ; cat date
         mkdir dir ; cd dir ; touch one ; mkdir two
                                                                                       a. Fri Mar 2 12:00:00 EST 2018
    a. 5
                    h 3
                                   c. 2
                                                  d 1
                                                                 e. 4
                                                                                       b. 1 6 29 date
89. Which of these statements is true?
                                                                                       c. 1 6 28 date
    a. If /y is an empty directory, echo /y/* produces an error message.
                                                                                       d. wc
    b. If /x is an empty directory, sort /x/* produces an error message.
                                                                                       e. no output
    c. Only backslashes are strong enough to stop GLOB patterns from expanding.
                                                                                  95. What is the output on your screen after these command lines:
    d. Only single quotes are strong enough to stop GLOB patterns from expanding.
                                                                                       echo 1 > x; \ln x y; echo 2 >> y
    e. Only double quotes are strong enough to stop GLOB patterns from expanding.
                                                                                       head -1 \times y; cat y
90. If /bin/xxx is a program that outputs one and /usr/bin/xxx is a program
                                                                                       a. 2
                                                                                                                b. 1
                                                                                                                                         c. 1 followed by 2
    that outputs two, what is the output on your screen after this:
                                                                                       d. 2 followed by 1
                                                                                                                e. no output
         PATH=/etc:/usr/bin:/usr:/bin ; /bin/xxx
                                                                                  96. In an empty directory, how many words are in file out after this:
    a. two followed by one
                                                                                           touch a ; ls >out
    h. two
                                                                                       a. 2
                                                                                                      b. 0
                                                                                                                     c. 3
                                                                                                                                    d. 1
                                                                                                                                                    e. 4
    c. one
                                                                                  97. In an empty directory, what is the output on your screen after this:
    d. bash: /bin/xxx: command not found
                                                                                           echo hi >foo ; cp foo bar | wc -w
    e. one followed by two
                                                                                       a. no output
                                                                                                                b. 0
                                                                                                                                         c. 1
91. If directory dir contains four three-character file names: .on, .tw, .th, .f.,
                                                                                       d. 2
                                                                                                                e. 3
    then what is the output on your screen of this: echo dir/*
                                                                                  98. If the file bat contained the word foo, what is the output on your screen after
    a. no output
                                                                                       this: PATH=/etc/passwd:/bin/ls:/bin/cat; /bin/ls bat
    b. dir/.on dir/.tw dir/.th
                                                                                       a. /bin/ls: bat: No such file or directory
    c. dir/.f.
    d. dir/*
                                                                                       h. bat.
    e. dir/. dir/.. dir/.on dir/.tw dir/.th dir/.f.
                                                                                       c. no output on screen
                                                                                       d. foo
                                                                                       e. bash: /bin/ls: command not found
```

```
99. What is the output of this in an empty directory:
                                                                                107. In an empty directory, what is the output on your screen after this:
        touch 1 .1 23 .23 456; echo [12]*
                                                                                         touch 1 2 3; cow="*"; echo $cow
    a. 1 .1 23 .23 456
                                                                                                             b. "1 2 3"
                                                                                    a. $cow
                                                                                                                                      c. 1 2 3
    b. an error message from echo saying [ab] * does not exist
                                                                                    d. "*"
                                                                                                             e. *
    c. 1 23
                                                                                108. Which displays only the names in the current directory that are exactly three digits
    d. [12]*
                                                                                    long (and no other names)?
    e. 1 .1 23 .23
                                                                                    a. echo [0-9][0-9][0-9]
                                                                                                                         b. echo ???
100. In an empty directory, what is the output on your screen after this:
                                                                                    c. echo [1-3][1-3][1-3]
                                                                                                                         d. echo [3][3][3]
        ls nosuchfile 2>out
                                                                                    e. echo [?][?][?]
    a nosuchfile 2 not found
                                         h nosuchfile
                                                                                109. How many lines are in the file out after this:
    c. no output
                                         d. 2 not found
                                                                                         date >f ; ls f >>f ; cat f f >out
    e. nosuchfile not found
                                                                                                   b. 2
                                                                                                                  c. 1
                                                                                                                                 d. 6
                                                                                                                                                e. 0
101. What is the link count of file f after these successful commands?
                                                                                110. Which command shows only names that match rtfm. case-insensitive?
    rm f; touch f; ln f bar
                                                                                    a. echo [rR][tT][fF][mM]
                                                                                                                         b. echo *[rRtTfFmM]*
    cp bar x ; ln x y ; ln y z
                                                                                                                          d. echo [rR,tT,fF,mM]
                                                                                    c. echo [rRtTfFmM]
                                                 d. 4
    a. 1
                   b. 2
                                 c. 0
                                                                e. 3
                                                                                    e. echo *rtfmRTFM*
102. File a contains 2 lines. File b contains 3 lines. How many lines are output on your
                                                                                111. Which makes a file executable?
    screen by this: cat b | sort a
                                                                                    a. umask -x file
                                                                                                                          b. chmod -x file
    a. 2 followed by 3
                             b. 3 followed by 2
                                                      c. 4
                                                                                                                          d umask u=x file
                                                                                    c. umask u+x file
    d. 3
                             e. 2
                                                                                    e. chmod u+x file
103. If /bin/bat is a program that outputs foo and /usr/bin/bat is a program
                                                                                112. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after
    that outputs bar what is the output on your screen after this:
                                                                                    this: ln a d; ln b e; cp d e >c
        PATH=/usr:/usr/bin:/bin; bat
                                                                                    a. 4
                                                                                                   b. 0
                                                                                                                  c. 5
                                                                                                                                 d. 2
                                                                                                                                                e. 3
    a bash: bat: command not found
                                                                                113. How many arguments are passed to the command by the shell:
    b. bar
                                                                                         $ <foo foo -x " " -z -r" " >foo 'foo foo'
    c. foo
                                                                                                   b. 5
                                                                                    a. 7
                                                                                                                  c. 9
                                                                                                                                                e. 8
    d. bar followed by foo
                                                                                114. Which command removes only this four-character name containing a special
    e. foo followed by bar
                                                                                    character: *xvz
104. Rewrite as a simplified absolute path:
                                                                                    a. rm ''*xyz
                                                                                                                                      C. rm ''*xyz''
                                                                                                             b. rm *"xyz"
    /home/me/../you/../../etc/../home/me/../you/../me/../foo
                                                                                    d. rm "*xyz"
                                                                                                             e. rm *xyz
    a. /home/you/foo
                                         b. /home/foo
                                                                                115. Which displays only the non-hidden names in the current directory that contain the
    c. /etc/foo
                                         d. /foo
                                                                                    case-insensitive word me (and no other names)?
    e. /home/me/foo
                                                                                    a. echo * (M, m, E, e) *
                                                                                                                         b. echo ?[MmEe]?
105. What is the link count of file a after these successful commands?
                                                                                    c. echo *[me]*
                                                                                                                         d. echo *[MmEe]*
         ln ad; cp af; ln dc; ln fq; ln ce
                                                                                    e. echo *[Mm][Ee]*
    a. 2
                   b. 5
                                 c. 3
                                                 d. 1
                                                               e. 4
                                                                                116. What is the link count of file f after these successful commands?
106. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after
                                                                                    rm f; touch f; ln f bar
    this: sort a b >c : cat a b c >c
                                                                                     cp bar a ; ln a b ; ln bar c ; cp c a
    a. 10
                   b. 0
                                  c. 6
                                                 d. 5
                                                                e. 7
                                                                                    a. 2
                                                                                                   h. 5
                                                                                                                  c. 1
                                                                                                                                d. 3
                                                                                                                                                e. 4
```

117. File **a** contains 2 lines. File **b** contains 3 lines. How many lines are output on your screen by this: **cp a b >c**; **cat a b c**

a. 10

b. 6

c. 5

d. 4

e. **7**

e. 5

118. What is the link count of directory **d** after these successful commands?

mkdir d ; mkdir d/a d/b ; touch d/c d/e

a. 2 b. 4

c. 3

d. 1

119. If file **nine** contains 9 lines, each of which is the one-digit line number of the line in the file (1 through 9), what is the output on your screen of this:

sort nine nine | tail -n 3 | head -n 1

a. 9

b. **1**

c. 8

d. 2 2 e. 8 8

120. If **/bin/foo** is a program that outputs **one** and **/usr/bin/foo** is a program that outputs **two**, what is the output on your screen after this:

PATH=/bin/ls:/home:/usr/bin/cat:/etc; foo

a. two followed by one

b. bash: foo: command not found

c. one

d. one followed by two

e. two

121. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: ln a d; ln d c; cp c b; sort a b d >c

a. 4

b. 0

c. 6

d. 2

e. 5

122. Rewrite as a simplified absolute path:

/../../var/./a/../../var/b/../../etc/./bar/../foo

a. /var/foo

b. /etc/bar/foo

c. /etc/foo

123. Which command removes *only* this four-character name containing a special character: ?xyz

a. rm ?'xyz'

b. rm ''?xyz''

c. rm ?xyz

d. rm '?xyz'

e. rm ''?xyz

124. What is true about this: date >ls; ls -ls ls >wc

a. The wc command counts the output of the 1s command.

b. The **ls** command receives the output of **date** on standard input.

c. The file **wc** has one line in it.

d. The shell finds and executes three different commands.

e. The **1s** command is executed more than once.

125. Which command appends directory /bin to your search path?

a. PATH=PATH:/bin

b. \$PATH=PATH:/bin

c. \$PATH=\$PATH:/bin

d. PATH=PATH+/bin

e. PATH=\$PATH:/bin

126. Which always prints just the two characters \$x on the screen?

a. echo "\$x"

b. echo \$x

c. echo "\$\$x"

d. echo \$\$x

e. echo '\$x'

127. What is the output of this in an empty directory:

touch .1 .2 .3 4 5 6; echo .*

a. .1 .2 .3 4 5 6

b. an error message from **echo** saying .* does not exist

c. .*

d. 4 5 6

e.1 .2 .3

128. What is the output on your screen of this:

echo wc >wc ; wc wc >wc ; cat wc

a. no output

b. 1 1 2 wc

c. 0 0 0 wc

d. 1 1 3 wc

e. wc

129. What is true about this output from ls -il foo bar

15 -r-x---- 2 me me 3 Jan 1 1:00 foo

99 -r-x---- 2 me me 3 Jan 1 1:00 bar

a. **foo** and **bar** are names for the same file

b. this output is not possible

c. **foo** and **bar** each have three names (six names total)

d. **foo** and **bar** are names for different files

e. foo and bar are two of three names for the same file

130. What is the link count of directory **d** after these successful commands? **mkdir d**; **cd d**; **touch f**; **ln f a**; **ln f b**

a. 1

b. **2**

c. 4

d. 5

e. 3

131. How many lines are in the file **out** after this:

echo hi >x; echo ho >>x; cat $x \times x >$ out

a. 0

b. 3

c. **1**

d. 2

e. 6

132. What is in the local variable \$\$?

a. the command name of the previous command line

b. the first argument of the previous command line

c. the cpu cost of the current session, in dollars

d. the process ID of the current shell

e. \$\$ is not a valid variable name

133. In an empty directory, what is the output on your screen after this:

touch A a ; echo * ">*"

a. No output

b. A a >A a

c. **A a**

d. * >*

e. A a >*

134. What is the output on your screen after this:

echo hi >a ; cp a b | wc -w

a. 2

b. 0

c. 3

d. no output

e. 1

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35. File a contains 2 lines. File b contains 3 lines. How many lines are in file this: sort a b >c; cat a >>b; sort c b a >c	screen by this: cat a 1s b
a. 0 b. 5 c. 7 d. 12 e.	8
36. What displays on your screen given this command: ls >ls; wc ls >wc; sort ls cat wc	143. What is the link count of an empty directory?
a. nothing displays because cat ignores the pipe	a. 4 b. 0 c. 2 d. 1 e. 3
b. cat reads the pipe and the wc and displays both together	144. If files occupy one disk block, how many disk blocks will the system free up if I
 c. only the wc displays because cat ignores the pipe d. sort displays the 1s and cat displays the wc 	remove these four file names:
e. only the 1s displays because cat ignores the pipe	111 -rw-rr 1 me me 100 Jan 1 1:00 a 222 -rw-rr 2 me me 100 Jan 1 1:00 b
237. In an empty directory, what is the output on your screen after this:	333 -rw-rr 2 me me 100 Jan 1 1:00 B
echo one >.bar; echo .????*	444 -rw-rr 1 me me 100 Jan 1 1:00 d
a????*	a. 3 b. 4 c. 0 d. 2 e. 1
b. one	145. If directory dir contains five two-character names: a?, 11, ?1, 1*, .1, then
cbar	which removes <i>only</i> the single two-character name ?1 from the directory?
dbar	a. rm dir/?1 b. rm dir/*1 c. rm dir/??
e. an error message from echo saying .????* does not exist	<pre>d. rm dir/1*</pre>
38. What is usually in the environment variable \$PATH ?	146. What is in file foo after this: echo 1 2 >foo 3
a. the absolute path of your login home directory	a. 1 2 b. 1 2 3
b. the absolute path of the system /path directory	c. 3 $d. $ echo 1 2
 c. a colon-separated list of directories containing command names d. the absolute path of your login shell 	e. nothing (empty file)
e. a colon-separated list of your passwd file fields	147. What is the link count of directory d after these successful commands? mkdir d d/a d/b d/c d/c/z; touch d/x d/y
39. If files occupy one disk block, how many disk blocks will the system free to	
remove these four file names:	
111 -rw-rr 1 me me 100 Jan 1 1:00 a	148. What is the output on your screen of this: echo bat >pig ; echo one tail pig
222 -rw-rr 1 me me 100 Jan 1 1:00 b	a. one b. one followed by bat
333 -rw-rr 1 me me 100 Jan 1 1:00 c	c. bat d. an error message
444 -rw-rr 2 me me 100 Jan 1 1:00 d a. 1 b. 0 c. 3 d. 4 e.	a bat followed by one
40. What is the output of this in an empty directory: echo *	149. In an empty directory, how many words are in file out after this: echo hi >a ; ls >out
<i>a.</i>	a. 0 b. 1 c. 3 d. 4 e. 2
b c. *	150. Which command counts lines containing the string refused in only the month
d. an error message from echo saying * does not exist	October 2016 in the denyhosts log file?
e. no output	a. fgrep -c 2016-10 denyhosts fgrep refused
41. Which makes pathnames /usr/local/bin and /usr/bin lead to the	same b. fgrep '2016-10 refused' denyhosts
directory?	c. igrep refused denyhosts ; igrep -c 2016-10
a. ln . /usr/local b. rmdir /usr/local	d. fgrep 'refused' denyhosts fgrep -c '2016-10' e . fgrep refused denyhosts fgrep -c October 2016
c. mkdir /usr/local d. ln -s . /usr/local	e. igrep refused denyhosts igrep -c October 2016
<pre>e. touch /usr/local</pre>	

e. hi

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151. In an empty directory, what is the output on your screen after this: 157. What is the output on your screen after this: date >.foo >.bar ; ls * PATH=/bin/cat:/bin/sh:/bin/ls; ls nosuchfile a. an error message from **ls** saying * does not exist a. bash: /bin/ls: command not found b.foo .bar b. ls: nosuchfile: No such file or directory c. * c. bash: /bin/sh: No such file or directory d. .foo .bar d. bash: 1s: command not found e. no output e. ls: /bin/ls: command not found 152. If **foo** were a readable empty file, what is the output on your screen after this: 158. If /bin/foo is a program that outputs mom and /usr/bin/foo is a program PATH=/etc/passwd:/bin/ls:/bin/cat; /bin/cat foo that outputs **dad** what is the output on your screen after this: PATH=/bin/foo:/usr/bin/foo:/usr; foo a. no output on screen a. mom followed by dad b. bash: /bin/cat: command not found c. /bin/cat: foo: No such file or directory b. bash: foo: command not found d. bash: 1s: command not found c. dad followed by mom e. bash: cat: command not found d dad e. mom 153. If /bin/foo is a program that outputs dad and /usr/bin/foo is a program that outputs **mom** what is the output on your screen after this: 159. If you are in /etc and ls -1 shows a symbolic link bar -> ../foo then PATH=/usr:/etc:/bin:/usr/bin ; foo dereference the absolute path of **bar** with no symbolic links: a. /foo b. /bar/foo a. mom c. /etc/foo/bar b. dad d. /etc/bar/foo e. /etc/foo c. dad followed by mom 160. Which environment variable contains your HOME directory? d. bash: foo: command not found b. \$HOME a. /home e. mom followed by dad c. /home/abcd0001 d. \$/HOME 154. What is the link count of directory **d** after these successful commands? e. Shome mkdir d; mkdir d/a; mkdir d/a/b; mkdir d/a/c 161. In an empty directory, what is the output on your screen after this: a. 4 b. 1 c. 3 d. 2 echo one >.bar ; echo .* 155. If files occupy one disk block, how many disk blocks will the system free up if I a. an error message from **echo** saying .* does not exist remove these four file names: b. .* 111 -rw-r--r-- 1 me me 100 Jan 1 1:00 a c. one 222 -rw-r--r-- 1 me me 100 Jan 1 1:00 b d.bar 444 -rw-r--r-- 2 me me 100 Jan 1 1:00 c e. .bar 444 -rw-r--r-- 2 me me 100 Jan 1 1:00 d 162. Dereference the following symlink **xyz** into its equivalent absolute path: h. 2 c. 0 d. 3 a. 4 e. 1 ln -s ../../a/./b/../bar /tmp/a/b/xyz 156. Your current directory is **dir1**. The parent directory contains another directory, a. /tmp/bar b. /tmp/b/bar c. /tmp/b/xyz dir2. Which command copies file foo from the current directory into the dir2 d. /tmp/a/bar e. /tmp/a/b/bar directory? 163. In an empty directory, what is the output on your screen of this: b. cp foo ../dir2 a. cp .. dir2 foo echo hi >foo >bar ; cat foo c. cp foo dir2/.. d. cp foo dir2 a. cat: foo: No such file or directory e. cp foo dir2 ... b. no output c. hi >foo >bar d. hi >foo

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164. '	Which of the following is true, given this long directory listing:	171. What is the link count of file f after these successful commands?			
	drwxr-xx 128 me me 32 Jan 1 1:00 dir	rm f; touch f; ln f a; ln a b			
	a. The number 32 is the count of links (names) this directory has.	cpfc; lncx; rmb; mvab			
	b. The number 128 is the count of links (names) this directory has.	a. 2 b. 0 c. 1 d. 3 e. 4			
	c. The number 128 is the inode number of this directory.	172. How many arguments are passed to the command by the shell:			
	d. The number 128 is the size of this directory.	\$ <foo "="" '="" 'b="" a="" c'="" d="" e="" f="" foo="" g="" h="">foo</foo>			
(e. The number 32 is the inode number of this directory.	a. 5 b. 2 c. 3 d. 4 e. 6			
	Which command shows names under directory oldnotes containing RTFM anywhere in the name?	173. How many arguments are passed to the command by the shell: \$ <foo "="" '="" 'b="" a="" c'="" d="" e="" f="" foo="" g="">foo</foo>			
(a. ls oldnotes/*RTFM* b. ls oldnotes *RTFM*	a. 6 b. 3 c. 2 d. 5 e. 4			
(c. 1s oldnotes RTFM * d. 1s oldnotes*RTFM*	174. If directory cow contains four three-character file names: .AA , .A1 , .BB , .B .,			
(2. ls oldnotes/RTFM*	then what is the output on your screen of this: echo cow/*			
166. 1	If files occupy one disk block, how many disk blocks will the system free up if I	a. cow/*			
1	remove these four file names:	b. cow/.AA cow/.A1 cow/.BB cow/.B. c. no output			
	111 -rw-rr 2 me me 1 Jan 1 1:00 a				
	111 -rw-rr 2 me me 1 Jan 1 1:00 b	d. cow/.AA cow/.A1 cow/.BB			
	222 -rw-rr- 3 me me 1 Jan 1 1:00 c	e. cow/.B.			
	222 -rw-rr- 3 me me 1 Jan 1 1:00 d	175. How many arguments are passed to the command by the shell:			
	a. 4 b. 0 c. 3 d. 2 e. 1	\$ echo 'It's a bird! It's a plane!'			
167. (Given this ls -il long listing:	a. 4 b. 5 c. 2 d. 3 e. 1			
	123 drwxr-xr-x 456 me me 789 Jan 1 1:00 dir	176. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after			
	How many subdirectories lie immediately under dir?	this: cp a c; cat a b c >c			
	a. 456 b. 787 c. 123 d. 454 e. 789	a. 0 b. 5 c. 6 d. 7 e. 4			
	If /bin/pig is a program that outputs hi and /usr/bin/pig is a program	177. In an empty directory, what is the output on your screen after this:			
1	that outputs foo what is the output on your screen after this:	echo hi >a ; ls >wc -l			
	PATH=/etc:/usr/bin:/bin ; pig	a. 0 b. 1 c. 2			
	a. foo followed by hi	d. no output e. a			
	b. foo	•			
	c. hi	178. What command shows all the lines in file cow that contain the string pig ?			
	d. hi followed by foo	a. fgrep cow pig b . fgrep pig <cow< th="">c. fgrep cat cow pigd. cat cow > fgrep pig</cow<>			
	e. bash: pig: command not found	e. fgrep pig >cow			
169.	What is the link count of directory dir after these successful commands?				
ć	mkdir dir; mkdir dir/foo; touch dir/bar a. 2 b. 4 c. 3 d. 1 e. 5	179. In an empty directory, what is the output on your screen after this: 1s out 2>/dev/null			
170. '	What is the output on your screen after these command lines:	a. no output			
	echo one >x ; ln x y ; echo two >y	b. out			
•	echo ten >x ; cat y	c. ls: out 2>/dev/null: No such file or directory			
(a. no output on screen b. ten	d. ls: /dev/null: No such file or directory			
(c. two d. one followed by two and ten	e. ls: out: No such file or directory			
(c. one	180. How many arguments are passed to the command by the shell: Secho " 1 2 "three ' 4 ' five"6"			

c. **5**

b. **1**

a. 3

e. 9

d. 4

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```
181. If directory dir contains three four-character file names: .123, .124, .???,
                                                                               190. In an empty directory, what is the output on your screen after this:
    then what is the output on your screen of this: echo dir/????
                                                                                        1s 2>/dev/null nosuchfile
    a. dir/.123 dir/.124 dir/.???
                                                                                    a. nosuchfile
    b. dir/????
                                                                                    b. 1s: 2>/dev/null nosuchfile: No such file or directory
    c. echo: dir/????: No such file or directory
                                                                                    c. no output
    d. no output
                                                                                    d. ls: nosuchfile: No such file or directory
    e. dir/.123 dir/.124
                                                                                    e. ls: /dev/null: No such file or directory
182. In a directory containing one file named dog, what is the output on your screen
                                                                               191. In an empty directory, how many words are in file out after this:
    after this: 2>/dev/null ls nosuchfile
                                                                                        touch 1 2 3 2 1 : 1s >out
                                                                                                   h. 4
                                                                                                                                d. 6
    a. no output
                                                                                    a. 5
                                                                                                                 c. 0
                                                                                                                                               e. 3
    b. bash: 2>/dev/null: command not found
                                                                               192. In an empty directory, what is the output on your screen after this:
    c. nosuchfile
                                                                                        touch 1 2 .a .b ; echo .*
    d. ls: nosuchfile: No such file or directory
                                                                                    a. . . . . a .b
    e. dog
                                                                                    b. 1 2
183. What is the link count of file f after these successful commands?
                                                                                    c. .*
    rm f; touch f; ln fb; cp f q
                                                                                    d. an error message from echo saying .* does not exist
    cpba; lnad; lnbc; cpcg
                                                                                    e. .a .b
    a. 3
                   b. 4
                                  c. 5
                                                d. 2
                                                               e. 1
                                                                               193. If files occupy one disk block, how many disk blocks will the system free up if I
184. How many lines are in file out after this: echo hi >dog >out >cat
                                                                                    remove these four file names:
                                                                                    111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a
    a. 4
                                                               e. 3
                                  c. 0
                                                                                    111 -rw-r--r-- 2 me me 100 Jan 1 1:00 b
185. How many arguments are passed to the command by the shell:
                                                                                    222 -rw-r--r-- 3 me me 100 Jan 1 1:00 c
        $ <bar bar -b"-a '-r' >bar" bar >out
                                                                                    222 -rw-r--r-- 3 me me 100 Jan 1 1:00 d
    a. 5
                   b. 3
                                  c. 2
                                                d. 6
                                                               e. 4
                                                                                    a. 2
                                                                                                   b. 0
                                                                                                                                d. 3
                                                                                                                 c. 4
                                                                                                                                               e. 1
186. What is in file c after this:
                                                                               194. File foo contains 9 lines, each of which is the one-digit line number of the line in
        echo A >a ; ln a b ; echo B >b ; ln a c ; rm a b
                                                                                    the file (1 through 9). What is the output on your screen of this:
    a. nothing (empty file)
                                         b. A
                                                                                        sort foo foo | tail -n 2 | head -n 1
    c. B
                                         d. A followed by B
                                                                                    a. 9
                                                                                                   h. 8
                                                                                                                 c. 8 8
                                                                                                                                d. 1
                                                                                                                                               e. 2 2
    e. no such file (nonexistent)
                                                                               195. What is the output on your screen of this:
187. If directory /a contains seven two-character names: aa, ab, ac, ad, a?, a*,
                                                                                        echo pig >one ; echo cow | head -n 2 one
    a., then which removes only the single two-character name a? from the directory?
                                                                                    a. pig followed by cow
                                                                                                                         b. cow followed by pig
                             b. rm /a/a?
    a. rm /a/a*
                                                     c. rm /a/a\?
                                                                                    c. pig
                                                                                                                         d. cow
    d. rm /a?
                             e. rm /a/a[*]
                                                                                    e. an error message
188. Rewrite as a simplified absolute path:
                                                                               196. Which of the following commands will leave file1 non-empty?
    /usr/./bin/../lib/../../etc/../usr/./lib/../bin/./bar
                                                                                    a. cat file1 > file1
                                                                                                                         b. sort file1 > file1
    a. /bar
                             b. /usr/lib/bar
                                                     c. /usr/bar
                                                                                    c. tail file1 > file1
                                                                                                                         d. head file1 > file1
    d. /etc/bar
                             e. /usr/bin/bar
                                                                                    e. wc file1 > file1
189. In an empty directory, how many words are in file c after this:
                                                                               197. In an empty directory, how many lines are in file out after this:
        touch a ; mv b a >b ; ls >c
                                                                                        ls . .. nosuchfile 2>out
    a. 1
                   b. 3
                                 c. 4
                                                d. 2
                                                               e. 0
                                                                                    a. 3
                                                                                                   h. 1
                                                                                                                 c. 2
                                                                                                                                d. 4
                                                                                                                                               e. 0
```

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207. How many lines are in the file **bar** after this: 198. How many arguments are passed to the command by the shell: \$ echo " 1 2 " three ' 4 ' five"6" echo hi >x ; echo ho >>x ; cat x >bar a. 4 h. 1 c. 9 d. 3 b. 2 c. 4 *d*. 0 e. 5 a. 1 e. 6 199. Which shows the current date? 208. In an empty directory, what is the output on your screen after this: echo hi >a ; ls nosuchfile 2>/dev/null a. bash >date ; cat date b. date | bash c. echo date | bash d. bash date a. no output b. nosuchfile e. bash <date c. a 200. Which command removes *only* this five-character name containing a special d. ls: 2>/dev/null: No such file or directory character: date? e. ls: nosuchfile: No such file or directory a. rm ./date\? b. rm ./date? c. rm date/? d. rm date\\? e. rm date* 209. In a directory containing one file named **dog**, what is the output on your screen after this: 1>/dev/null ls * 201. If /bin/foo is a program that outputs one and /usr/bin/foo is a program a. * that outputs **two**, what is the output on your screen after this: b. ls: *: No such file or directory PATH=/dev:/usr/bin:/usr:/bin:/etc; /bin/foo c. no output a. two d. dog b. one followed by two e. bash: 1>/dev/null: command not found c. one d. bash: /bin/foo: command not found 210. File a contains 2 lines. File b contains 3 lines. How many lines are output on your screen by this: cat a a b | date e. two followed by one b. 7 d. 5 a. 6 c. 8 e. 1 202. Which outputs only lines 11-15 of the Unix password file? 211. If you are in /bin and ls -1 shows a symbolic link bar -> ../dir/foo a. head -n 15 /etc/passwd | tail -n 5 then dereference the absolute path of **bar** with no symbolic links: b. tail -n 15 /etc/passwd | head -n 10 a. /bin/dir/foo b. /bar/../dir/foo c. head -n 15 /etc/passwd tail -n 5 /etc/passwd d. tail -n 10 /etc/passwd | head -n 15 /etc/passwd c. /bin/bar/dir/foo d. /bin/dir/foo/bar e. head -n 10 /etc/passwd | tail -n 15 /etc/passwd e. /dir/foo 203. Which would show the index (inode) number of a file? 212. In an empty directory, what is the output on your screen after this: touch 1 2 3; cow="*"; echo ""\$cow"" a. find -i file h ls -1 file c. ls -i file a. "Scow" b. Scow c. "1 2 3" d cat -1 file e cat -i file d. * e. 1 2 3 204. How many arguments are passed to the command by the shell: \$ echo ' one two ' three ' four ' 5'6' 213. File a contains 2 lines. File b contains 3 lines. How many lines are output on your screen by this: cat b | cat a *a*. **5** h. 6 c. 9 d. 1 e. 4 a. 5 h. 2 c. 3 205. If files occupy one disk block, how many disk blocks will the system free up if I *d.* **2** followed by **3** e. 3 followed by 2 remove these four file names: 214. In an empty directory, what is the output on your screen after this: 111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a echo one >.bar ; echo .?* 222 -rw-r--r-- 2 me me 100 Jan 1 1:00 b 333 -rw-r--r-- 2 me me 100 Jan 1 1:00 c a. .. .bar 444 -rw-r--r-- 2 me me 100 Jan 1 1:00 d h. one a. 1 b. 2 c. 3 d. 4 e. 0 c. .?* d. .bar 206. Which command moves a file into the parent directory? e. an error message from echo saying .?* does not exist a. mv ../file b. mv .. file c. mv file,.. d. mv file/.. e. mv file ...

215. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

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```
111 -rw-r--r- 2 me me 100 Jan 1 1:00 a

222 -rw-r--r- 1 me me 100 Jan 1 1:00 b

333 -rw-r--r- 2 me me 100 Jan 1 1:00 c

333 -rw-r--r- 2 me me 100 Jan 1 1:00 d

a. 1 b. 2 c. 4 d. 0 e. 3
```

216. What is the output on your screen after these command lines:

217. In an empty directory, how many arguments are passed to the cat command in this: date >a1; touch a2 ba ca; cat a*

```
a. 3 b. 1 c. 2 d. 4 e. none
```

218. What is the output on your screen after this:

```
mkdir dir ; rmdir dir | wc -w
a. 2 b. 0 c. 3
d. 1 e. no output
```

219. File **foo** contains 9 lines, each of which is the one-digit line number of the line in the file (**1** through **9**). What is the output on your screen of this:

```
cat foo foo | sort -r | head -n 4 | tail -n 1

a. 9 b. 6 c. 5 d. 8 e. 7
```

220. What is usually in the environment variable **\$SHELL**?

- a. the absolute path of the system /shell directory
- b. the relative path of the **/home/shell** directory
- c. the absolute path of your login shell
- d. the relative path of the system /shell directory
- e. the relative path of your login shell
- 221. Which command finds your account login userid in the password file?

```
a. find /etc/passwd -name $USER
```

- b. cat \$USER /etc/passwd
- c. fgrep /etc/passwd \$USER
- d. fgrep \$USER /etc/passwd
- e. find \$USER /etc/passwd
- 222. What is the output on your screen after this:

```
echo one >x ; ln x y ; echo two >>y ; sort x

a. one

b. no output

c. one followed by two

d. two
```

e. two followed by one

```
223. What is the output of this in an empty directory:
```

```
touch .a .b .c; echo .*

a. an error message from echo saying .* does not exist
b. .*

c. no output
d. . . . a .b .c
e. .a .b .c
```

224. The option to **ls** that shows inode (index) numbers is:

```
a. -1 b. -a c. -1 d. -i e. -x
```

225. What is in file **c** after this:

```
echo foo >a ; ln a b ; echo bar >>b ; ln a c ; rm a a. bar b. foo followed by bar c. no such file (nonexistent) d. nothing (empty file) e. foo
```

226. How many words are in the file **x** after this:

```
echo 1 2 >x ; echo 3 >x ; echo 4 >>x 
a. 3 b. 4 c. 1 d. 0 e. 2
```

227. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

```
111 -rw-r--r- 3 me me 100 Jan 1 1:00 a

111 -rw-r--r- 3 me me 100 Jan 1 1:00 b

222 -rw-r--r- 3 me me 100 Jan 1 1:00 c

222 -rw-r--r- 3 me me 100 Jan 1 1:00 d

a. 0 b. 4 c. 1 d. 2 e. 3
```

228. File **a** contains 2 lines. File **b** contains 3 lines. How many lines are output on your screen by this: **cat a** | **cat b**

```
a. no output b. 3 c. 5
d. 0 e. 2
```

- 229. What does *quoting* mean on a shell command line?
 - a. using more than one pathname argument to a command, e.g. rm a b c
 - b. setting the **PS1** variable to be your shell prompt
 - c. typing a "control" character using the [CTRL] key
 - d. using a leading tilde ("~") on a pathname to mean your **HOME** directory
 - e. turning off the special meaning of shell meta-characters

230. What is the link count of file **f** after these successful commands?

```
rm f; touch f; ln f bar
cp bar x; ln x y; ln bar z; ln z a
a. 4 b. 5 c. 1 d. 2 e. 3
```

e. 5

e. 6

c. 0 0 0 hi

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```
231. Which allows programs in the current directory to execute without preceding the
                                                                                238. In an empty directory, what is the output on your screen after this:
    names with ./? (P.S. Security Risk! Don't do this!)
                                                                                         echo hi >a ; sort * 1>/dev/null
    a. PATH=/bin:/usr/bin:.
                                          b. $PATH=/usr/bin:./bin
                                                                                     a. sort: 1>/dev/null: No such file or directory
    c. $PATH=.:$HOME:/usr/bin
                                          d. PATH=/usr/bin/.:$HOME
                                                                                     b. a
    e. PATH=./$HOME:/usr/bin
                                                                                     c. sort: *: No such file or directory
                                                                                     d. no output
232. You enter this cp a/b c/
                                                                                     e. hi
    and get cp: a: No such file or directory
    because:
                                                                                239. How many arguments are passed to the command by the shell:
                                                                                         $ echo 'It's a bird! No! It's a plane!'
    a. directory a does not exist
    b. the command cp is not in your search PATH
                                                                                                    h. 4
                                                                                                                                  d. 2
                                                                                     a. 1
                                                                                                                   c. 3
    c. pathname a exists but is a file, not a directory
                                                                                240. The correct syntax to assign to a shell variable is:
    d. you forgot to specify the destination file name after c/
                                                                                     a. V = "foo bar"
                                                                                                                          b. "V=foo bar"
    e. directory c does not exist
                                                                                                                          d. V="foo bar"
                                                                                     c. V=foo bar
233. What is the output on your screen after these command lines:
                                                                                     e. V = foo bar
    echo one >x ; ln x y ; echo two >>y
                                                                                241. How many files are touched? touch "1" 2 3 " " 4 5
    sort x >y ; cat y
                                                                                                    b. 7
                                                                                     a. 5
                                                                                                                   c. 3
    a. one followed by two
                                          b. no output
                                                                                242. What is the output on your screen of this:
    c. two followed by one
                                          d. two
                                                                                         echo hi >hi ; head hi >hi ; wc hi
    e. one
                                                                                                              h. 1 1 2 hi
                                                                                     a. 1 1 3 hi
234. In an empty directory, what is the output on your screen after this:
                                                                                                              e. 2 2 4 hi
                                                                                     d. no output
         echo one >.bar ; ls .????*
                                                                                243. What is the output of this in an empty directory:
    a. an error message from 1s saying .????* does not exist
                                                                                         touch 1 2 3 .a .ab .abc ; echo [.]*
    b. one
                                                                                     a. [.]*
    c. .bar
                                                                                     b. no output
    d. .????*
                                                                                     c. . .. .a .ab .abc
    e. .. .bar
                                                                                     d. an error message from echo saying [.] * does not exist
235. If I have a directory named a/b, which action would increase its link count by
                                                                                     e. .a .ab .abc
    exactly one?
                                                                                244. What is in file foo after this:
    a. create a hard link to directory b named b2
                                                                                         echo hi >a ; ln a b ; echo me >b ; ln a foo ; rm a b
    b. create a directory named a/b/c
                                                                                                                          b. no such file (nonexistent)
                                                                                     a. hi
    c. create a file named a/b2
                                                                                     c. nothing (empty file)
                                                                                                                          d. me
    d. create a directory named a/b2
                                                                                     e. hi followed by me
    e. create a file named a/b/c
                                                                                245. Which shows only lines 6-10 of file foo?
236. Which file is a DOS/Windows file?
                                                                                     a. head -10 foo | tail -5
                                                                                                                          b. tail -15 foo | head -5
    a. ASCII text
                                                                                                                          d. head -6 foo | tail -10
                                                                                     c. tail -10 foo
                                                                                                          head -6
    b. ASCII text, with CR line terminators
                                                                                     e. head -10 foo | tail -6
    c. ASCII text, with CRLF line terminators
                                                                                246. Which outputs inode/filename pairs for names in the current directory, sorted by
    d. ASCII text, with no line terminators
                                                                                     inode number?
    e. ASCII text, with LF line terminators
                                                                                     a. ls ./* | sort -node
                                                                                                                          b. sort -n | ls -ai
```

e. 7

1 Minute Per Question

1 Minute Per Question

this: cat a b >c : sort c a b >c

b. 5

a. 0

237. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after

c. 10

d. 6

c. ls -i * > sort -n

e 1s -node * > sort -n

d. ls -ai | sort -n

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258. File foo contains 9 lines, each of which is the one-digit line number of the file (1 through 9). What is the output on your screen of this: c foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are two of three names for the same file e. foo and bar are two of three names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file e. foo and bar are names for the same file d. foo of the file or the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. foo and bar are names for the same file d. d. 8 e. 6 259. What is the link count of directory dir after these successful commands? mkdir dir; cod dir; touch so be che seed to the command by the shell: % echo 'It's 'I z' isn't it'? I can't decide. a. 4 b. 2 c. 5 d. 4 b. 2 c. 3 d. 5 e. 6 260. What is the link count of file f after these successful commands? ram f; touch f is the output on your screen after this: a. foo b. foo followed by foo e. bash: prg: co	247.	In an empty directory, how many arguments are passed to the wc command in this: date >o1; touch a1 b2 out >o1; wc o*	256.	If the current directory contains 10 visible files and 15 visible sub-directories, what is the output on your screen of this: $ls -d */.$		
A FOOBAR b foobar c Foobar d FOOBAR c Foobar a this output is not put is not possible c foo and bar are names for the same file c foo and bar are names for different files e foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are two of three names (six names total) d foo and bar are two of three names for the same file c foo and bar are names for different files c foo and bar are two of three names for the same file c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for the same file c foo and bar are names for the same file c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for different files c foo and bar are names for the same file c foo and bar are names for the same file c foo foo i plan for the file (1 through 9). What is the link count of different files s foo fo		a. 5 b. 2 c. 4 d. 1 e. 3				
4. FOOBAR e. foobar 2. foobar 3. foo bar 15 -r-x	248.	Which one of these names is usually a shell environment variable?				
29. What is true about this output from 1s -11 foo bar 15 -r-xx 2 me me 3 Jan 1 1:00 foo a. this output is not possible b. foo and bar are names for the same file c. foo and bar are names for different files e. foo and bar are names for different files e. foo and bar are two of three names (six names total) d. foo and bar are two of three names for the same file c. or dir1 dir2 d. mv -r dir1 dir2 d. mv -r dir1 dir2 d. mv -r dir1 dir2 d. mr dir1 dir2 d. mr dir1 dir2 d. mr -r dir1		a. FooBar b. fooBar c. Foobar				
15 - r - r - r - r - r 2 me me 3 Jan 1 1:00 foo 15 - r maxrwxrw 2 me me 3 Jan 1 1:00 bar 2 ho mossible 2 ho foo and bar are names for the same file 2 ho mo and bar are names (six names total) 3 ho foo and bar are names for the same file 2 ho mo - r dir1 dir2 2 ho mo - r dir1 dir2 3 ho mo - r dir1 dir2 4 ho mo - r dir1 dir2 5 ho mo - r dir1 dir2 6 ho mo - r dir1		d. FOOBAR e . foobar				
15 -r-x 2 mé me 3 Jan 1 ::00 foo 15 -r-xr-xr 2 me me 3 Jan 1 ::00 foo at this output is not possible b foo and bar are names for the same file c foo and bar are names for directory d for for the file z fall and 1 is an output by shell: s echo 'It's "12" isn't it? I can't decide. a 4 b 2 c 3 d 6 c c 5 d 6 c c 5 d 6 c c 5 d 6 c c 5 d 6 c c 5 d 6 c c 5 d 6 c	249.	What is true about this output from ls -il foo bar		·		
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			257.			
a. this output is not possible b. foo and bar are names for the same file c. foo and bar are names for different files d. foo and bar are names for different files e. foo different files e. for different files e. foo different files e. for different fil				\$ <cow "-x"="" '-z'="" -y="" cow="">cow cow</cow>		
b. foo and bar are names for the same file c. foo and bar are names for the same file d. foo and bar are names for different files e. foo and bar are names for different files e. foo and bar are two of three names for the same file 250. Which command copies a directory: a. mv -r dir1 dir2 b. mv -f dir1 dir2 c. cp dir1 dir2 d. cp -r dir1 dir2 e. mv -rf dir1 dir2 d. cp -r dir1 dir2 d. cond bar are two of three names for the same file d. 8 e. 6 259. What is the link count of directory dir after these successful commands? mkdir dir; cd dir; touch a b c; mkdir de a. a b. b. 2 c. foo d. no output on screen e. bash: cat: command not found e. bash: cat: command file in dir2 d. a 1 b. 3 c. no output on screen a. 5 b. 2 c. 5 d. 6 e. 260. How many arguments are passed to the command by the shell: s < coc ow "-x" "-y '-z' > cow cow a. 1 b. 3 c. no output on your screen after this: coat foo foo sort tail -n 4 head -n 1 a. no output of directory dir after these successful commands? mkdir dir; cd dir; touch a b c; mkdir de a. 2 b. 3 c. 7 d. 5 e. 260. How many arguments are passed to the command by the shell: s < coc ow "-x" "-y '-z' > cow cow a. 1 b. 3 c. no output on your screen after this: coat foo foo sort tail -n 4 head -n 1 a. no output of directory dir after these successful commands? mkdir dir; cd dir; touch a b c; mkdir de a. 2 e. 261. What is the link count of file f after these successful commands? rm f; touch f; ln fb; cp fc cp b x; ln x y; ln b z; ln z a a. 4 b. 6 c. 5 d. 7 e. 3 e. 6				a. 2 b. 3 c. 5 d. 4 e. 6		
the file (1 through 9). What is the output on your screen of this: a mv -r dir1 dir2 b mv -f dir1 dir2 c mv -r dir1 dir2 b mv -f dir1 dir2 c mv -r dir1 dir2 b mv -f dir1 dir2 c mv -r dir1 dir			258.	File foo contains 9 lines, each of which is the one-digit line number of the line in		
e. foo and bar are two of three names for the same file 250. Which command copies a directory: 2 m w -r dirl dir2				the file (1 through 9). What is the output on your screen of this:		
d. 8 e. 6 259. Which command copies a directory: a. mv -r dir1 dir2 b. mv -f dir1 dir2 e. mv -rf dir1 dir2 d. cp -r dir1 dir2 e. mv -rf dir1 dir2 d. cp -r dir1 dir2 file file bat contained the word foo, what is the output on your screen after this: PATH=/bin/cat:/bin/who:/bin/ls; cat bat: a. cat: bat: No such file or directory b. bat c. foo d. no output on screen e. bash: cat: command not found 252. What is the link count of file fafter these successful commands? mkdir foo; cd foo; touch a b c a. 5 b. 2 c. 3 d. 1 e. 4 253. How many arguments are passed to the command by the shell: \$ \$ <a hr<="" td=""><td></td><td>d. foo and bar are names for different files</td><td></td><td>cat foo foo sort tail -n 4 head -n 1</td>		d. foo and bar are names for different files		cat foo foo sort tail -n 4 head -n 1		
259. What is the link count of directory dir after these successful commands? 250. c p dir1 dir2		e. foo and bar are two of three names for the same file		<i>a.</i> no output <i>b.</i> 1 <i>c.</i> 4		
259. What is the link count of directory dir after these successful commands? 260. What is the link count of directory by that is the output on your screen after this: 271. By that is the link count of directory by the shell: 282. What is the link count of directory foo after these successful commands? 283. How many arguments are passed to the command by the shell: 284. What is the link count of directory foo after these successful commands? 285. How many arguments are passed to the command by the shell: 286. How many arguments are passed to the command by the shell: 286. What is the link count of directory directory hat is the output on your screen after this: 286. How many arguments are passed to the command by the shell: 287. What is the link count of directory directory hat is the output on your screen after this: 288. How many arguments are passed to the commands? 289. What is the link count of file f after these successful commands? 280. What is the link count of directory directory hat is the output on your screen after this: 280. What is the link count of directory directory directory directory directory directory directory directory hat is the link count of file f after these successful commands? 280. What is the link count of file f after these successful commands? 281. How many arguments are passed to the command by the shell: 282. What is the link count of file f after these successful commands? 283. How many arguments are passed to the command by the shell: 284. What is the link count of file f after these successful commands? 285. In an empty directory, what is the output on your screen after th	250.	Which command copies a directory:		d. 8 e. 6		
mkdir dir; cd dir; touch a b c; mkdir deem vr = f dir1 dir2 dir1 dir1 dir1 dir1 dir1 dir1 dir1 dir1			259.	What is the link count of directory dir after these successful commands?		
25.1 If the file bat contained the word foo, what is the output on your screen after this: PATH=/bin/cat:/bin/who:/bin/ls; cat bat a. cat: bat: No such file or directory b. bat c. foo d. no output on screen e. bash: cat: command not found 25.2 What is the link count of directory foo after these successful commands? mkdir foo; cd foo; touch a b c a. 5 b. 2 c. 3 d. 1 e. 4 25.3 How many arguments are passed to the command by the shell: \$ < com cow "-x "-y '-z' > cow cow a. 1 b. 3 c. no output d. 2 c. no output d. 2 d. 2 b. 3 c. 7 d. 5 e. 260. How many arguments are passed to the command by the shell: \$ chi fb ink count of file f after these successful commands? mkdir foo; cd foo; touch a b c a. 5 b. 2 c. 3 d. 1 e. 4 25.3 How many arguments are passed to the command by the shell: \$ < com cow "-x "-y '-z' > cow cow a. 1 b. 3 c. no output d. 2 d. 4 b. 5 c. 7 d. 5 e. 260. How many arguments are passed to the command by the shell: \$ cho in file or directory foo after these successful commands? mkdir foo; cd foo; touch a b c b. 2 c. 3 d. 1 e. 4 262. If /bin/prg is a program that outputs hi and /usr/bin/prg is a program that outputs foo what is the output on your screen after this: PATH=/etc:/usr/bin:/bin; prg a. foo b. foo followed by hi c. hi d. hi followed by foo e. bash: prg: command not found 263. What is the link count of directory dir after these successful commands? mkdir dir; touch foo; cd dir; ln/foo bar a. 3 b. 5 c. 4 d. 2 e. 264. What is the link count of file f after these successful commands? mkdir dir; touch foo; cd dir; ln/foo bar a. 3 b. 5 c. 4 d. 2 e. 265. How many files are touched? touch '1 "2 3 '4'" ' 5						
this: PATH=/bin/cat:/bin/who:/bin/ls; cat bat a. cat: bat: No such file or directory b. bat c. foo d. no output on screen e. bash: cat: command not found 252. What is the link count of directory foo after these successful commands? mkdir foo; cd foo; touch a b c a. 5		-		a. 2 b. 3 c. 7 d. 5 e. 4		
a. cat: bat: No such file or directory b bat c. foo d. no output on screen e. bash: cat: command not found e. bash: prg: comma			260.			
261. What is the link count of file f after these successful commands? 27. what is the link count of directory foo after these successful commands? 28. what is the link count of directory foo after these successful commands? 28. what is the link count of directory foo after these successful commands? 28. what is the link count of directory foo after these successful commands? 28. what is the link count of directory foo after these successful commands? 28. what is the link count of directory foo after these successful commands? 28. what is the link count of directory foo after these successful commands? 28. what is the output on your screen after this: 28. a. 4 b. 2 c. 3 d. 5 e. 28. EATH=/etc:/usr/bin:/bin; prg 28. foo 28. b. 6 c. 5 d. 7 e. 3 28. b. 6 c. 5 d. 7 e. 3 28. what is the output on your screen after this: 28. what is the output on your screen after this: 28. what is the output on your screen after this: 28. what is the output on your screen after this: 28. what is the link count of file f after these successful commands? 29. If /bin/prg is a program that outputs hi and /usr/bin/prg is a program that outputs foo what is the output on your screen after this: 29. PATH=/etc:/usr/bin:/bin; prg 29. d. foo 29. bash: prg: command not found 20. what is the link count of directory dir after these successful commands? 29. mkdir dir; touch foo; cd dir; ln/foo bar 29. a. 4 b. 2 c. 3 20. what is the link count of file f after these successful commands? 29. mkdir dir; touch foo; cd dir; ln/foo bar 20. a. 5 b. 2 c. 6 d. 4 e. 20. what is the link count of file f after these successful commands? 29. what is the link count of file f after these successful commands? 29. li part in x y; ln b z; ln z a 29. ln x y; ln x y; ln b z; ln z a 29. ln foo 29. what is the link count of file f after these successful commands? 29. ln a x y; ln b z; ln z a 29. ln foo 29. ln a x y; ln b z; ln z a 29. ln foo 29. ln a x y; ln foo 29. ln foo 29. ln foo 29. ln a x y; ln foo 29. ln foo 29. ln f						
c. foo d. no output on screen e. bash: cat: command not found e. bash: cat: command not found 252. What is the link count of directory foo after these successful commands? mkdir foo; cd foo; touch a b c a. 5 b. 2 c. 3 d. 1 e. 4 253. How many arguments are passed to the command by the shell: \$ < cow cow "-x "-y '-z' > cow cow a. 4 b. 6 c. 5 d. 7 e. 3 254. What is the output on your screen after this: echo hi > out wc - w a. 1 b. 3 c. no output d. 2 e. 0 255. In an empty directory, what is the output on your screen after this: touch a; 1s > wc -1 a. 1 b. 2 c. 3 d. 0 e. no output d. 0 e. no output d. 0 e. no output e. 0 266. How many files are touched? touch '1 "2 3 '4'" ' 5		-	261			
d. no output on screen e. bash: cat: command not found e. bash: cat: command not found 252. What is the link count of directory foo after these successful commands? mkdir foo; cd foo; touch a b c a. 5 b. 2 c. 3 d. 1 e. 4 253. How many arguments are passed to the command by the shell: \$\frac{5}{5} \cdot \ccor \c			201.			
e. bash: cat: command not found 252. What is the link count of directory foo after these successful commands? mkdir foo; cd foo; touch a b c a. 5 b. 2 c. 3 d. 1 e. 4 253. How many arguments are passed to the command by the shell: \$						
252. What is the link count of directory foo after these successful commands? mkdir foo; cd foo; touch a b c a. 5		•				
## that outputs foo what is the output on your screen after this: a. 5			262			
253. How many arguments are passed to the command by the shell: \$\$\$ \$<\cos \cos ''' - x'' - y' - z' > \cos \cos ''' \$\$\$ a. 4		mkdir foo ; cd foo ; touch a b c	that outputs foo what is the output on your screen after this:			
\$ <cow "-x="" "-y="" '-z'="" cow=""> cow cow a. 4</cow>						
a. 4 b. 6 c. 5 d. 7 e. 3 254. What is the output on your screen after this: a. 1 b. 3 c. no output d. 2 e. 0 255. In an empty directory, what is the output on your screen after this: touch a; ls >wc -1 a. 1 b. 2 c. 3 d. 0 e. no output d. 2 c. hi d. hi followed by foo e. bash: prg: command not found 263. What is the link count of directory dir after these successful commands? mkdir dir; touch foo; cd dir; ln/foo bar a. 3 b. 5 c. 4 d. 2 e. 264. What is the link count of file f after these successful commands? cp f x; ln f a; ln x y; ln a z; ln a b a. 5 b. 2 c. 6 d. 4 e. 265. How many files are touched? touch '1 "2 3 '4'" ' 5	253.					
254. What is the output on your screen after this: echo hi >out wc -w a. 1 b. 3 c. no output d. 2 e. 0 255. In an empty directory, what is the output on your screen after this: touch a; ls >wc -1 a. 1 b. 2 c. 3 d. 0 268. What is the output on your screen after this: what is the output on your screen after this: a. 3 b. 5 c. 4 d. 2 e. 269. What is the link count of directory dir after these successful commands? mkdir dir; touch foo; cd dir; ln/foo bar a. 3 b. 5 c. 4 d. 2 e. 269. What is the link count of file f after these successful commands? cp f x; ln f a; ln x y; ln a z; ln a b a. 5 b. 2 c. 6 d. 4 e. 269. How many files are touched? touch '1 "2 3 '4'" ' 5				· · · · · · · · · · · · · · · · · · ·		
e. bash: prg: command not found a. 1				**		
263. What is the link count of directory dir after these successful commands? 265. In an empty directory, what is the output on your screen after this: a. 1 b. 2 c. no output 263. What is the link count of directory dir after these successful commands? mkdir dir; touch foo; cd dir; ln/foo bar a. 3 b. 5 c. 4 d. 2 e. 264. What is the link count of file f after these successful commands? cp f x; ln f a; ln x y; ln a z; ln a b a. 5 b. 2 c. 6 d. 4 e. 265. How many files are touched? touch '1 "2 3 '4'" ' 5	254.	What is the output on your screen after this: echo hi >out wc -w		·		
mkdir dir; touch foo; cd dir; ln/foo bar a. 3 b. 5 c. 4 d. 2 e.			262			
a. 1 b. 2 c. 3 d. 0 e. no output a. 1 b. 2 c. 3 b. 5 c. 4 d. 2 e. 264. What is the link count of file f after these successful commands? cp f x ; ln f a ; ln x y; ln a z; ln a b a. 5 b. 2 c. 6 d. 4 e. 265. How many files are touched? touch '1 "2 3 '4'" ' 5		d. 2 e. 0	263.			
264. What is the link count of file f after these successful commands? 264. What is the link count of file f after these successful commands? 265. How many files are touched? c after these successful commands? 266. What is the link count of file f after these successful commands? 267. The successful commands? 268. What is the link count of file f after these successful commands? 269. What is the link count of file f after these successful commands? 260. What is the link count of file f after these successful commands? 261. What is the link count of file f after these successful commands? 262. What is the link count of file f after these successful commands? 263. What is the link count of file f after these successful commands? 264. What is the link count of file f after these successful commands? 265. How many files are touched? 266. What is the link count of file f after these successful commands? 267. What is the link count of file f after these successful commands? 268. What is the link count of file f after these successful commands? 269. What is the link count of file f after these successful commands?	255.	In an empty directory, what is the output on your screen after this:				
d. 0 cp f x; ln f a; ln x y; ln a z; ln a b a. 5 b. 2 c. 6 d. 4 e. 265. How many files are touched? touch '1 "2 3 '4'" ' 5		touch a ; ls >wc -l	24			
a. 5 b. 2 c. 6 d. 4 e. 265. How many files are touched? touch '1 "2 3 '4'" ' 5			264.			
265. How many files are touched? touch '1 "2 3 '4'" ' 5		d. 0 e. no output		-		
			265.	How many files are touched? touch '1 "2 3 '4'" ' 5		
a. z b. 1 c. 4 d. 5 e.				a. 2 b. 1 c. 4 d. 5 e. 3		

266.	In an empty directory, what is the output on your screen after this: touch 1 2 3; cow="*"; echo '\$cow' a. '\$cow' b. * c. 1 2 3	275. If /bin/xxx is a program that outputs one and /usr/bin/xxx is a program that outputs two, what is the output on your screen after this: PATH=/bin/xxx:/usr/bin/xxx:/etc/passwd; xxx
267.	 d. '1 2 3' e. \$cow If file foo occupies one disk block, how many disk blocks are in use after this: cp foo bar; In bar one; cp one two; cp one xxx a. 3 b. 2 c. 4 d. 5 e. 1 	a. bash: xxx: command not found b. two followed by one c. one d. two
268.	What is the link count of file f after these successful commands? rm f ; touch f ; cp f x ln -s f a; ln x y; ln a z; ln x b a. 5 b. 4 c. 2 d. 1 e. 3	 e. one followed by two 276. File foo contains 9 lines, each of which is the one-digit line number of the line in the file (1 through 9). What is the output on your screen of this: cat foo foo cat tail -n 4 head -n 1
269.	Given an existing file of yours named cat, what is the output on your screen of this: echo xx >cat; head cat >cat; wc cat a. 1 1 3 cat b. no output c. 2 2 4 cat d. 0 0 0 cat e. 1 1 2 cat	 a. 9 b. 7 c. 5 d. 8 e. 6 277. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: ln a d; ln d e; ln b f >c a. 0 b. 4 c. 3 d. 5 e. 2
270.	How many arguments are passed to the command by the shell: \$ echo "cow "y " bat 'man x' " pig'a "hop' a b a. 11	278. File a contains 2 lines. File b contains 3 lines. How many lines are in file e after this: ln a d ; cp a f ; ln d c ; ln c e ; cat a b d f > e a. 2 b. 3 c. 5 d. 9 e. 6
271.	If the file pig contained the word bar, what is the output on your screen after this: PATH=/etc/passwd:/bin/ls:/bin/who; /bin/cat pig a. bar	279. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: cat a a > c; head b >>a; cat c b > c a a. 8 b. 12 c. 0 d. 7 e. 10
	 b. bash: /bin/cat: command not found c. no output on screen d. pig e. /bin/cat: pig: No such file or directory 	280. Which command below is the best way to find a line containing a question mark (?) in the file /etc/passwd? a. find '?' /etc/passwd b. search '?' /etc/passwd
272.	File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: sort a b > c; cat a >>b; cat c b > c a a. 7 b. 8 c. 0 d. 12 e. 5	c. fgrep /etc/passwd '?'d. fgrep './?' /etc/passwde. fgrep '?' /etc/passwd
273.	If /bin/foo is a program that outputs one and /usr/bin/foo is a program that outputs two, what is the output on your screen after this: PATH=/etc:/usr/bin:/usr:/bin:/dev; foo a. two followed by one	281. Which command usually goes in your .bash_profile file? a. source ./.bash_profile b. source ./.bashrc cbashrc source d. cat .bashrc ebash_profile source
	b. bash: foo: command not found c. one d. one followed by two e. two	282. What is the output of this in an empty directory: date >.date; users >.users; echo .?* adate .users bdate .users
274.	File a contains 2 lines. File b contains 3 lines. How many lines are in file c after this: ln a e; ln b d; ln d c; cat e b > c a. 0 b. 2 c. 3 d. 4 e. 5	c?* d. an error message from echo saying .?* does not exist edate

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283. In an empty directory, what is the output on your screen after this: 292. Which command shows the name of the current computer: echo one >.bar ; echo .??* b. history a. hostname c. comname a. .??* d. find e. whois b. one 293. What is the link count of directory **z** after these successful commands? c. an error message from **echo** saying .??* does not exist mkdir z ; cd z ; touch a b ; mkdir c d e d. bar a. 4 c. 6 d. 5 e. 7 e. .bar 294. What is the output of this in an empty directory: 284. In an empty directory, what is the output on your screen after this: touch .a .b .c ; echo .??* echo hi >a; mv a b; ln b c; ls >wc -l a. no output b. no output a. 2 c. 1 b. an error message from **echo** saying .??* does not exist d. **a** e. 0 c. .??* 285. How many arguments are passed to the command by the shell: d.a .b .c \$ <pig pig -x " " -z -r" " >pig pig pig e. .a .b .c a. 6 b. 5 c. 9 d. 8 e. 7 295. How many lines are in file out after this: date >wc >cat >out 286. What command will recursively find all pathnames named **foo** in **/bin**? *a*. 0 b. 2 c. 1 6 29 a. find /bin -name 'foo' d. 1 e. 0 0 0 b. fgrep 'foo' /bin 296. If /bin/pig is a program that outputs **xx** and /usr/bin/pig is a program c. ls -R 'foo' /bin that outputs **foo** what is the output on your screen after this: d. fgrep /bin -basename 'foo' PATH=/home:/bin:/dev:/usr/bin; pig e. find foo -name '/bin' a. **xx** followed by **foo** 287. What is the link count of directory **d** after these successful commands? b. foo mkdir d; touch f; cd d; ln ../f x c. bash: pig: command not found d. 3 d. **foo** followed by **xx** a. 1 b. 2 c. 5 e. 4 e. xx 288. File a contains 2 lines. File b contains 3 lines. How many lines are output on your screen by this: cat a | echo b ; echo a 297. What is the link count of directory **d** after these successful commands? b. 7 mkdir d; cd d; touch a; mkdir b c a. 1 c. 2 e. 5 a. 2 h. 5 c. 6 d. 3 e. 4 289. If you are in /etc and ls -1 shows a symbolic link bar -> foo then 298. How many files are touched? touch "1 " 2 3" " ' ' dereference the absolute path of **bar** with no symbolic links: 4 5 a. /etc/foo h. /foo c. /etc/foo/bar a. 7 h. 5 c. 6 e. 3 d. /etc/bar/foo e. /bar/foo 299. What is the link count of file **f** after these successful commands? 290. Which option to **1s** displays the directory itself and not its contents? rm f; touch f; cp f x ln fa; ln x y; ln az; ln z q b. -1 c. -R d -ie. -d a. -a a. 2 b. 5 c. 3 d. 4 e. 6 291. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names: 300. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after 111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a this: sort a b >z; tail a >a; sort a b z >c 111 -rw-r--r-- 2 me me 100 Jan 1 1:00 b a. 5 h. 6 c. 0 d. 10 e. 8 222 -rw-r--r-- 2 me me 100 Jan 1 1:00 c 222 -rw-r--r-- 2 me me 100 Jan 1 1:00 d b. 0 c. 2 d. 3 a. 1 e. 4

```
301. What is true about this output from ls -il foo bar
                                                                                   310. Which displays only the non-hidden names in the current directory that contain the
     15 -r-x---x 2 me me 3 Jan 1 1:00 foo
                                                                                        letter a (and no other names)?
     15 -r-x---x 2 me me 3 Jan 1 1:00 bar
                                                                                        a. echo a*
                                                                                                                  h. echo *a
                                                                                                                                            c. echo ?a?
    a. foo and bar are names for the same file
                                                                                        d. echo *a*
                                                                                                                  e. echo [a]
    b. foo and bar are two of three names for this file
                                                                                   311. If directory /a contains seven two-character names: aa, ab, ac, ad, a?, a*,
    c. foo and bar are names for different files
                                                                                        a., then which removes only the single two-character name a* from the directory?
    d. this output is not possible
                                                                                        a. rm /a/*
                                                                                                                  b. rm "/a/a*"
                                                                                                                                           c. rm /a/a?
     e. foo and bar each have three names (six names total)
                                                                                        d. rm /a/a*
                                                                                                                  e. rm /a*
302. What is the link count of directory dir after these successful commands?
                                                                                   312. What is usually in the environment variable $HOME?
         mkdir dir ; cd dir ; touch foo ; mkdir a b c
                                                                                        a. the relative path of the system /home directory
    a. 2
                    b. 4
                                   c. 3
                                                   d. 5
                                                                  e. 1
                                                                                        b. the relative path of the ROOT directory
303. A "dangling symlink" is a symlink to:
                                                                                        c. the absolute path of the system /home directory
    a. a directory
                                           b. a non-existent target
                                                                                        d. the relative path of your login home directory
                                           d. a parent directory
    c. the current directory
                                                                                        e. the absolute path of your login home directory
    e. a special device file
                                                                                   313. What is in the file bar after this:
304. If /bin/bat is a program that outputs foo and /usr/bin/bat is a program
                                                                                             echo hi >x ; echo ho >x ; mv x y >bar
    that outputs hi what is the output on your screen after this:
                                                                                                                               b. no such file (nonexistent)
         PATH=/usr:/usr/bin:/bin ; bat
                                                                                        c. hi followed by ho
                                                                                                                               d. nothing (empty file)
    a. bash: bat: command not found
                                                                                        e. ho
    h hi
                                                                                   314. What is the link count of directory z after these successful commands?
    c. foo
                                                                                            mkdir z ; mkdir z/a z/a/b z/a/c z/a/d
    d. hi followed by foo
                                                                                                        b. 3
                                                                                        a. 5
                                                                                                                       c. 2
                                                                                                                                       d. 4
                                                                                                                                                      e. 1
    e. foo followed by hi
                                                                                   315. What is the link count of file f after these successful commands?
305. In an empty directory, how many arguments are passed to the rm command in this:
                                                                                        rm f; touch f; ln f bar; ln bar x
         date >a1 : touch a2 ba ca >all : rm a*
                                                                                        cp bar a ; ln a b ; ln -s x c ; cp c d
                    b. 2
                                                   d. 3
    a. 4
                                   c. none
                                                                  e. 1
                                                                                        a. 3
                                                                                                       h. 2
                                                                                                                       c. 4
                                                                                                                                                      e. 1
306. What is the link count of directory x after these successful commands?
                                                                                   316. What is the link count of directory d after these successful commands?
         mkdir x ; mkdir x/y ; mkdir x/z ; mkdir x/y/z
                                                                                            mkdir d; mkdir d/a; touch d/b
    a. 4
                    b. 5
                                                   d. 1
                                                                  e. 2
                                                                                                        b. 1
                                                                                                                                       d. 3
                                                                                        a. 2
                                                                                                                       c. 5
                                                                                                                                                      e. 4
307. What is the output of this in an empty directory:
                                                                                   317. If file one occupies one disk block, how many disk blocks are in use after this:
         touch .a .b .c ; echo [.]*
                                                                                             cp one foo ; ln foo two ; ln two bar ; ln one cow
    a. an error message from echo saying [.] * does not exist
                                                                                        a. 3
                                                                                                       b. 1
                                                                                                                       c. 5
                                                                                                                                       d. 2
                                                                                                                                                      e. 4
    b. . .. .a .b .c
                                                                                   318. What is the output of this in an empty directory:
    c. no output
                                                                                            touch .12 .345 .6789; echo .??*
    d. [.]*
                                                                                        a. .??*
    e. .a .b .c
                                                                                        b. .12 .345 .6789
308. How many files are touched? touch 1 "2 3"
                                                                                        c. . .. .12 .345 .6789
                    b. 7
                                                   d. 4
    a. 6
                                   c. 5
                                                                  e. 3
                                                                                        d. an error message from echo saying .??* does not exist
309. File a contains 2 lines. File b contains 3 lines. How many lines are in file c after
                                                                                        e. no output
    this: ln a e; ln b d; ln d c; cp d e; sort a b e d >c
     a. 10
                    b. 12
                                   c. 6
                                                   d. 4
                                                                  e. 7
```

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319. What is the usual output on your screen of this:
                                                                                   325. If mt is an empty sub-directory, what is true after this:
         mkdir dir ; cd dir >dir/foo ; cat foo
                                                                                            touch foo; mkdir bar; mv foo bar/mt
    a. bash: dir/foo: No such file or directory
                                                                                       a. the directory mt is still empty
                                                                                        b. the command fails because bar/mt is not a directory
    b. no output
    c. foo
                                                                                        c. the directory bar now contains a file named foo
    d. dir
                                                                                        d. the directory mt now contains a file named foo
    e. cat: foo: No such file or directory
                                                                                        e. the directory mt now contains a directory named bar
320. If files occupy one disk block, how many disk blocks will the system free up if I
                                                                                   326. In an empty directory, how many arguments are passed to the cat command in
    remove these four file names:
                                                                                        this: touch a1 a2 ac ba .a ; cat a*
    111 -rw-r--r-- 1 me me 1 Jan 1 1:00 a
                                                                                        a. 2
                                                                                                       b. none
                                                                                                                                      d. 1
                                                                                                                      c. 4
                                                                                                                                                     e. 3
     222 -rw-r--r-- 1 me me 1 Jan 1 1:00 b
                                                                                   327. What is the link count of file f after these successful commands?
     333 -rw-r--r-- 1 me me 1 Jan 1 1:00 c
                                                                                        rm f; touch f; cp f x
     444 -rw-r--r-- 2 me me 1 Jan 1 1:00 d
                                                                                        ln fa; ln x y; ln a z; ln x b
                    h. 3
                                                  d. 1
    a. 2
                                   c. 4
                                                                  e. 0
                                                                                                       h 4
                                                                                        a. 6
                                                                                                                      c. 5
                                                                                                                                      d. 2
                                                                                                                                                     e. 3
321. What is in file out after this:
                                                                                   328. If you want a user-defined alias in all your bash shells, what do you do?
         echo me >a ; ln a b ; echo hi >b ; ln a out ; rm a b
                                                                                        a. put the alias into the /etc/group file for next log in
                                           b. me followed by hi
    a. hi
                                                                                        b. put the alias into the /bin/bash file for next log in
    c. nothing (empty file)
                                           d. me
                                                                                        c. define the alias in my file $HOME/.bashrc
    e. no such file (nonexistent)
                                                                                        d. create the alias and then type save to save it to all shells
322. If /bin/xxx is a program that outputs one and /usr/bin/xxx is a program
                                                                                        e. put the alias into the /etc/passwd file for next log in
    that outputs two, what is the output on your screen after this:
                                                                                   329. File a contains 2 lines. File b contains 3 lines. How many lines are output on your
         PATH=/usr:/usr/bin:/etc:/bin ; xxx
                                                                                        screen by this: sort a | echo b
    a. one followed by two
                                                                                       a. 1
                                                                                                                 b. 2 followed by 3
                                                                                                                                           c. 4
    b. two followed by one
                                                                                        d. 3 followed by 2
                                                                                                                 e. 2 followed by 1
    c. bash: xxx: command not found
                                                                                   330. In an empty directory, how many words are in file cow after this:
    d. two
                                                                                            touch dog dog cat ; ls >cow
    e. one
                                                                                        a. 4
                                                                                                       b. 1
                                                                                                                                      d. 3
                                                                                                                      c. 0
                                                                                                                                                     e. 2
323. What is the output of this in an empty directory:
                                                                                   331. How many arguments are passed to the command by the shell:
         touch 1 2 3 .a .b .c; echo .??*
                                                                                            $ echo " one '2 three' 4 "five 6 ' 7 "8 ' >out
    a. . . . 1 2 3 .a .b .c
                                                                                        a. 6
                                                                                                       b. 4
                                                                                                                      c. 3
                                                                                                                                      d. 5
                                                                                                                                                     e. 2
    b. an error message from echo saying .??* does not exist
                                                                                   332. What is the output of this in an empty directory:
    c. . .. .a .b .c
                                                                                            touch 1 13 .13 2 213 3 30 39 .31; echo [13]?
    d. .??*
                                                                                        a. 1 13 3 30 39
    e. .a .b .c
                                                                                       b. an error message from echo saying [13]? does not exist
324. To change to the parent directory, do this:
                                                                                       c. [131?
    a. cd
                              b. pwd ...
                                                        c. cd .
                                                                                       d. 13 30 39
    d. pwd
                              e. cd ..
                                                                                        e. 13
                                                                                   333. If file foo occupies one disk block, how many disk blocks are in use after this:
                                                                                            cp foo bar ; ln bar one ; cp one two ; ln one pig
```

a. 3

c. 1

h. 4

e. 2

d. 5

a. 6

a. 5

a. /bin/bar/foo

c. this output is not possible

b. nothing (empty file)

e. nosuchfile

d. /foo/bar

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e. 4

e. 6

c. /bin/foo/bar

c. 5

c. 3

b. /bin/bar

\$ <f z " a 'b c' d " 1 2 ' q " h " ' >z

336. If you are in /bin and ls -1 shows a symbolic link foo -> /bar then

e. /bar

echo hi >foo ; ls nosuchfile | cat >foo

339. What is the link count of directory **d** after these successful commands?

d. 3

d. 2

334. How many arguments are passed to the command by the shell: \$ <bar bar -b "-a" '-r' >bar bar bar

335. How many arguments are passed to the command by the shell:

dereference the absolute path of **foo** with no symbolic links:

337. What is true about this output from ls -il foo bar

a. foo and bar are two of three names for this file

b. **foo** and **bar** are names for the same file

338. In an empty directory, what is in file **foo** after this:

d. ls: cannot access nosuchfile

h. 1

35 -rw-rw-r-- 2 me me 3 Jan 1 1:00 foo

36 -rw-rw-r-- 2 me me 3 Jan 1 1:00 bar

d. **foo** and **bar** each have two names (four names total)

e. foo and bar each have three names (six names total)

b. 7

h. 4

347 M/C Questions -42-1 Minute Per Question 342. If **mt** is an empty sub-directory, what is true after this: touch bar; mkdir foo; mv mt/../bar mt/foo a. the command fails because **mt/foo** is not a directory b. the directory **foo** now contains a file named **bar** c. the directory **mt** is still empty d. the directory **mt** now contains a file named **foo** e. the directory mt now contains a file named bar 343. What is the output on your screen of this: echo pig >one ; echo bat | tail one b. pig followed by bat a. an error message c. pig d. bat e. bat followed by pig 344. Which shows the file in **/bin** with the largest checksum? a. cat /bin | sum | sort -nr | head -n 1 b. ls /bin/* | sum | sort -nr | head -n 1 c. sum /bin | sort -nr | head -n 1 d. cat /bin/* | sum | sort -nr | head -n 1 e. sum /bin/* | sort -nr | head -n 1 345. In an empty directory, how many lines are in file **foo** after this: ls nosuchfile . .. 2>foo h. 3 d. 4 a. 0 c. 2 e. 1 346. What is the usual output on your screen of this: mkdir dir ; cd dir >foo ; cat foo a. no output h. dir c. foo d. bash: cd: dir: No such file or directory e. cat: foo: No such file or directory 347. Did you read all the words of the test instructions on page one? a. Sim (Yes - Portuguese) b. Taip (Yes - Lithuanian)

c. 4 340. If /bin/foo is a program that outputs hi and /usr/bin/foo is a program that outputs **mom** what is the output on your screen after this:

mkdir d; mkdir d/a; mkdir d/b; mkdir d/b/c

PATH=/etc:/usr/bin:/bin; foo

a. hi

a. 5

a. foo

c. hi

- b. mom followed by hi
- c. mom
- d. bash: foo: command not found
- e. hi followed by mom
- 341. In an empty directory, how many words are in file **foo** after this:

date >.bar >.out ; ls >foo

a. 1

h. 4

c. 2

d. 0

d. 2

e. 3

e. 3

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c. Tak (Yes - Polish)

e. Jes (Yes - Esperanto)

1 Minute Per Ouestion

d. Igen (Yes - Hungarian)