

Test Version: 341

Print Name: _____

Multiple Choice - 200 Questions - 0 of 0%

1. Read **all** the instructions and **both** sides (back and front) of all pages.
2. Put the **Test Version** above into **NO. OF QUESTIONS** and **NO. OF STUDENTS**
3. Answer the questions you know, first. One Answer Only per question.
4. Manage your time when answering questions on this test!

(Office use only: 34 81 186 157 108 24 50 91 148 93 136 13 111 59 168 119 155 132 76 37 4 102 184 86 161 154 109 45 97 28 164 98 30 150 7 163 1 198 100 23 125 129 71 65 133 193 173 83 63 176 162 170 58 194 15 36 35 159 57 200 39 84 21 123 151 80 101 52 48 127 26 79 90 120 167 180 196 178 99 12 137 60 192 113 152 41 138 8 131 11 115 117 158 27 16 114 18 46 56 95 75 70 147 103 104 130 183 19 49 25 78 22 40 179 9 89 87 92 6 55 165 85 17 139 96 116 38 175 29 172 31 128 88 145 10 54 20 160 171 51 3 66 166 187 33 67 181 53 146 107 110 189 74 185 72 43 191 68 182 112 142 190 5 94 62 156 124 169 197 141 42 140 135 64 174 177 47 77 82 143 2 149 134 61 106 153 105 188 126 199 121 195 32 44 144 122 118 69 14 73)

1. If directory **cow** contains only these four three-character file names: **.AA**, **.A1**, **.BB**, **.B.**, then what is the output on your screen of this command line: **echo cow/***
 - a. **cow/.AA cow/.A1 cow/.BB cow/.B.**
 - b. **cow/.AA cow/.A1 cow/.BB**
 - c. no output
 - d. **cow/.B.**
 - e. **cow/***
2. In an empty directory, what is in file **count** after this command line: **ls ??? | wc -w >count**
 - a. **1 1 2**
 - b. **1**
 - c. **0**
 - d. **1 1 1**
 - e. nothing (empty file)
3. Which of the command lines below can generate a non-empty file?
 - a. **tail -5 foo >foo**
 - b. **grep -v foo foo >foo**
 - c. **wc -wc foo >foo**
 - d. **sort -r foo >foo**
 - e. **tr abc ABC <foo >foo**
4. Which command below removes *only* this four-character file name containing a special character (and no others): **?abc**
 - a. **rm -r ?abc**
 - b. **rm /?abc**
 - c. **rm ''?abc''**
 - d. **rm "?abc"**
 - e. **rm ""?abc""**

5. What is the output of this command line in an empty directory: **touch x .a .ab .cde .fghi ; echo .??***
 - a. **.??***
 - b. **.cde .fghi**
 - c. an error message from **echo** saying **.??*** does not exist
 - d. **. . . .a .ab .cde .fghi**
 - e. **.ab .cde .fghi**
6. How many arguments does the shell pass to this **echo** command: **echo one two three >four five**
 - a. **4**
 - b. **6**
 - c. **2**
 - d. **3**
 - e. **5**
7. If 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 command: **sort foo foo | tail -4 | head -1**
 - a. **8**
 - b. **6 6**
 - c. **4 4**
 - d. **1 1**
 - e. **6**
8. What is in the file named **file** after this command line: **echo a >c ; echo b >>c ; mv c d >file**
 - a. **a** followed by **b**
 - b. nothing (empty file)
 - c. **a**
 - d. **b**
 - e. no such file (nonexistent file)
9. What would you type to change the permissions on a file to **rw-r-xr--**?
 - a. **chmod 654 file**
 - b. **chmod 212 file**
 - c. **chmod 221 file**
 - d. **chmod 351 file**
 - e. **chmod 530 file**
10. What is the correct syntax to redirect both standard output and standard error into the same output file?
 - a. **sum 1>out 2>out foo**
 - b. **sum 2>1 >out foo**
 - c. **sum >out foo 2>&1**
 - d. **sum 2>&1 foo >out**
 - e. **sum foo 1>out 2>1**
11. What is the output on your screen of this command line: **umask 547 ; mkdir newdir ; ls -ld newdir**
 - a. **dr--r--rw- 1 me me 0 Feb 20 07:55 newdir**
 - b. **d-w--wx--- 1 me me 0 Feb 20 07:55 newdir**
 - c. **d-w--wxrwx 1 me me 0 Feb 20 07:55 newdir**
 - d. **dr-xr--rwx 1 me me 0 Feb 20 07:55 newdir**
 - e. **d-w--w---- 1 me me 0 Feb 20 07:55 newdir**

12. How many arguments are passed to the command by the shell on this command line: `< pig pig -x " " -z -r " " > pig pig pig`
 a. 8 b. 7 c. 6 d. 5 e. 9
13. What is the output on your screen after these command lines:
`echo 1 >x ; ln x y ; echo 2 >>y`
`head -1 x >y ; cat y`
 a. 2 followed by 1 b. 1 followed by 2 c. no output
 d. 1 e. 2
14. If the current directory contains 5 visible files and 10 visible sub-directories, what is the output on your screen of this command: `echo */.`
 a. 10 directory names b. 15 pathnames
 c. */. d. 5 file names
 e. no output
15. Which command line displays all the names in the current directory that are exactly three digits long (and no others)?
 a. `echo [0-9][0-9][0-9]` b. `echo [3][3][3]`
 c. `echo [1-3][1-3][1-3]` d. `echo [?][?][?]`
 e. `echo ???`
16. What is the output on your screen after this command line:
`echo hi >a ; ls a > wc`
 a. 3 b. 1 1 2 c. 1 1 3
 d. no output e. 2
17. Which command below removes *only* this four-character file name containing a special character (and no others): `*xyz`
 a. `rm '*xyz'` b. `rm ''*xyz''`
 c. `rm *xyz` d. `rm '*xyz`
 e. `rm '*xyz'`
18. What is the output on your screen of this command line:
`echo wc >wc ; wc wc >wc ; sort wc`
 a. wc b. no output c. 0 0 0 wc
 d. 1 1 2 wc e. 1 1 3 wc
19. In an empty directory, how many lines are in file `out` after this command line: `ls . .. nosuchfile 2>out`
 a. 2 b. 0 c. 1 d. 4 e. 3

20. If directory `dir` contains these three four-character file names: `.123`, `.124`, `.????`, then what is the output on your screen of this command line:
`echo dir/????`
 a. `dir/????`
 b. `echo: dir/????: No such file or directory`
 c. `dir/.123 dir/.124 dir/.???`
 d. no output
 e. `dir/.123 dir/.124`
21. Given my directory `dir` and my file `dir/c` owned by me, which permissions allow me to delete the file `dir/c` from the directory, but not change the content (data) in the file?
 a. Permissions 100 on directory `dir` and 200 on file `dir/c`.
 b. Permissions 500 on directory `dir` and 400 on file `dir/c`.
 c. Permissions 300 on directory `dir` and 500 on file `dir/c`.
 d. Permissions 100 on directory `dir` and 100 on file `dir/c`.
 e. Permissions 300 on directory `dir` and 300 on file `dir/c`.
22. What is the output of this command line in an empty directory:
`touch .a .b .c ; echo .??*`
 a. an error message from `echo` saying `.??*` does not exist
 b. `.a .b .c`
 c. `.??*`
 d. `. .. .a .b .c`
 e. no output
23. Which of the command lines below can generate a non-empty file?
 a. `grep -v foo foo >foo` b. `sort -r foo >foo`
 c. `tail -5 foo >foo` d. `ls foo >foo`
 e. `tr abc ABC <foo >foo`
24. What is in file `out` after this command line: `echo a >out b c`
 a. `echo a` b. `a b c`
 c. `a` d. `b c`
 e. nothing (empty file)
25. Which command below removes only this file name containing a special character: `?xyz`
 a. `rm ''?xyz` b. `rm ?xyz`
 c. `rm '?xyz'` d. `rm '*xyz'`
 e. `rm ''?xyz''`

26. Which command below removes *only* this four-character file name containing a special character (and no others): `*dog`
- a. `rm ./*dog` b. `rm ./*dog` c. `rm **dog`
d. `rm ?dog` e. `rm /*dog`
27. What is the output on your screen after these command lines:
`echo 1 >a ; ln a b ; echo 2 >b`
`chmod 266 b ; cat a`
- a. an error message b. 2
c. 1 d. 1 followed by 2
e. no output on screen
28. If file `a` contains 20 lines, and file `b` contains 30 lines, then how many lines are in file `out` after this command line:
`cat a b >c ; head c >c ; sort a b c >out`
- a. 50 b. 60 c. 100 d. 30 e. 0
29. What is the output of this command line in an empty directory:
`echo *`
- a. *
b. an error message from `echo` saying * does not exist
c. .
d. . ..
e. no output on screen
30. How many lines are in the file `bar` after this command line:
`echo hi >x ; echo ho >>x ; cat x x >bar`
- a. 2 b. 6 c. 4 d. 0 e. 1
31. Which command counts the number of Unix permission groups you are in?
- a. `echo groups | wc` b. `id | wc`
c. `umask | wc` d. `wc groups`
e. `groups | wc`
32. What is the output of this command line in an empty directory: `ls *`
- a. an error message from `ls` saying * does not exist
b. . ..
c. .
d. *
e. no output on screen

33. If directory `/a` contains these seven two-character file names: `aa`, `ab`, `ac`, `ad`, `a*`, `a?`, `??`, then which command below will remove only the single two-character name `a?` from the directory (and no others)?
- a. `rm '/a/a?'` b. `rm /a\?` c. `rm /a/a?`
d. `rm /a/?\?` e. `rm "/a?"`
34. Which command below is the best way to find a line containing an asterisk (*) in the file named `foo`?
- a. `grep <foo [*]` b. `grep '*' <foo`
c. `grep * foo` d. `grep foo ""`
e. `grep ./* foo`
35. Given this successful command line (note the dot argument):
`cd /home/foo ; mkdir bar ; cd bar ; chmod -x .`
Which of the following subsequent commands will execute without any "permission denied" errors?
- a. `ls .` b. `ls /home/foo/bar/.`
c. `ls /home/foo/bar` d. `ls ..`
e. `ls /home/foo/bar/..`
36. Which command below sorts *only* this five-character file name containing a special character (and no others): `xx?xx`
- a. `sort ''xx?xx''` b. `sort xx/?xx`
c. `sort "xx?xx"` d. `sort "xx?xx"`
e. `sort xx?xx`
37. Given an existing file of yours named `foo`, what is the output on your screen of this command line:
`echo hi >foo ; sort foo >foo ; wc foo`
- a. 0 0 0 foo b. 1 1 2 foo c. 2 2 4 foo
d. 1 1 3 foo e. no output
38. Which of these statements is true?
- a. Only backslashes are strong enough to stop glob (wildcard) patterns from expanding.
b. Only single quotes are strong enough to stop glob (wildcard) patterns from expanding.
c. If `/x` is an empty directory, `sort /x/*` produces an error message.
d. If `/y` is an empty directory, `echo /y/*` produces an error message.
e. Only double quotes are strong enough to stop glob (wildcard) patterns from expanding.

39. What is the output of this command line in an empty directory:
`touch .12 .345 .6789 ; echo .??*`
- `.??*`
 - no output
 - `. ..12 .345 .6789`
 - an error message from `echo` saying `.??*` does not exist
 - `.12 .345 .6789`
40. How many arguments does the shell pass to this `echo` command:
`echo 'It's a bird! No! It's a plane!'`
- 4
 - 3
 - 2
 - 5
 - 1
41. What is the output on your screen of this command line:
`echo cat >out ; echo dog | sort out`
- `cat` followed by `dog`
 - `out`
 - `dog`
 - `cat`
 - `dog` followed by `cat`
42. What is the output on your screen of this command line:
`echo pig >one ; echo cow | head -2 one`
- `cow` followed by `pig`
 - an error message
 - `pig`
 - `pig` followed by `cow`
 - `cow`
43. In an empty directory, how many arguments are passed to the `rm` command in this command line:
`date >a1 ; touch a2 ba ca >all ; rm a*`
- 4
 - none
 - 2
 - 1
 - 3
44. In an empty directory, what is the output on your screen after this command line: `ls out 2>/dev/null`
- `out`
 - no output
 - `ls: out: No such file or directory`
 - `ls: /dev/null: No such file or directory`
 - `ls: out 2>/dev/null: No such file or directory`

45. What is the output on your screen of this command line:
`umask 162 ; touch newfile ; ls -l newfile`
- `---xrw--w- 1 me me 0 Oct 1 01:12 newfile`
 - `-rw---xr-x 1 me me 0 Oct 1 01:12 newfile`
 - `----rw--w- 1 me me 0 Oct 1 01:12 newfile`
 - `-rw----r-- 1 me me 0 Oct 1 01:12 newfile`
 - `-rw---x-w- 1 me me 0 Oct 1 01:12 newfile`
46. Which of the following will *not* cause `file1` to become an empty file?
- `tail file1 > file1`
 - `head file1 > file1`
 - `cat file1 > file1`
 - `sort file1 > file1`
 - `wc file1 > file1`
47. Which command line outputs inode/filename pairs for names in the current directory, sorted by inode number?
- `sort ls -ia`
 - `ls -ia > sort -n`
 - `sort -n | ls -ai`
 - `ls -a | sort -i`
 - `ls -i -a | sort -n`
48. What command shows all the lines in file `/etc/group` that contain the string `idallen`?
- `cat /etc/group | wc idallen`
 - `grep idallen >/etc/group`
 - `grep /etc/group idallen`
 - `grep idallen </etc/group`
 - `cat /etc/group > grep idallen`
49. In an empty directory, what is the output on your screen after this command line: `ls 2>/dev/null nosuchfile`
- `ls: 2>/dev/null nosuchfile: No such file or directory`
 - `nosuchfile`
 - `ls: nosuchfile: No such file or directory`
 - no output
 - `ls: /dev/null: No such file or directory`
50. Which command line shows the file in `/bin` with the largest checksum?
- `sum /bin/* | sort -nr | head -1`
 - `sum /bin | sort -nr | head -1`
 - `cat /bin/* | sum | sort -nr | head -1`
 - `ls /bin/* | sum | sort -nr | head -1`
 - `cat /bin | sum | sort -nr | head -1`

51. Which command below removes only this file name containing a special character: **abc***
- a. `rm abc*` b. `rm abc/**` c. `rm abc*`
d. `rm abc/*` e. `rm abc*`
52. Which command line displays the contents of the Unix **passwd** file one page at a time?
- a. `cat /etc/passwd >less`
b. `/etc/passwd | less`
c. `less | /etc/passwd`
d. `/etc/passwd >less`
e. `less </etc/passwd`
53. If file **x** contains ten lines, and file **y** contains twenty lines, then how many lines are in file **cat** after this command line:
- ```
sort x y >z ; tail -5 y >y ; sort x y z >cat
```
- a. 40                      b. 0                      c. 50                      d. 60                      e. 45
54. Which of these command line will make **file3** contain all of the content of **file1** followed by all of the content of **file2**?
- a. `echo file1 file2 >file3`  
b. `cat file1 file2 >file3`  
c. `cp file1 file2 >file3`  
d. `mv file1 file2 >file3`  
e. `ln file1 file2 >file3`
55. How many arguments does the shell pass to this **echo** command:
- ```
echo " 1 2 " three ' 4 ' five"6"
```
- a. 4 b. 5 c. 3 d. 1 e. 9
56. If directory **dir** contains these four three-character file names: **.aa**, **.ab**, **.a?**, **.a***, then what is the output on your screen of this command line:
- ```
echo dir/???
```
- a. `dir/???`  
b. no output  
c. `dir/.aa dir/.ab`  
d. `dir/.a?`  
e. `dir/.aa dir/.ab dir/.a? dir/.a*`

57. If directory **dir** contains only these five two-character file names: **a?**, **11**, **?1**, **1\***, **.1**, then which command below will remove *only* the single two-character name **?1** from the directory?
- a. `rm dir/\??`                      b. `rm dir/?1`                      c. `rm dir/??`  
d. `rm dir/1*`                      e. `rm dir/*1`
58. Which command below removes *only* this four-character file name containing a special character (and no others): **cat?**
- a. `rm cat/?`                                              b. `rm "'cat?'"`  
c. `rm \cat?`                                              d. `rm ""cat?""`  
e. `rm "cat?"`
59. If file **x** contains ten lines, and file **y** contains twenty lines, then how many lines are in file **cat** after this command line:
- ```
sort x y >z ; tail -5 x >x ; sort x y z >cat
```
- a. 55 b. 40 c. 50 d. 60 e. 0
60. Which of these statements is true?
- a. you may be able to rename a file even if you do not own the file
b. you can only make links to files owned by you
c. you can only remove a file name if the file is writable by you
d. you can change the permissions of any file to which you can write
e. you can only remove a file name if the file is owned by you
61. If file **/a** contains 3 lines, and file **/b** contains 5 lines, then how many lines are output on your screen by this command line: `cat /a | sort /b`
- a. 5 b. 0 c. 2 d. 3 e. 8
62. What command shows all the lines in file **foo** that contain the string **bar**?
- a. `grep foo bar` b. `grep bar <foo`
c. `cat foo > grep bar` d. `grep bar >foo`
e. `grep cat foo bar`
63. How many arguments does the shell pass to this **echo** command:
- ```
echo 'It's "1 2" isn't it? I can't decide.'
```
- a. 4                      b. 5                      c. 6                      d. 2                      e. 3
64. What is the output on your screen after this command line:
- ```
mkdir foo ; rmdir foo | wc -c
```
- a. 0 b. 4 c. no output
d. 3 e. 1

65. Which command below is the best way to find a line containing an asterisk (*) in the file named **foo**?
- a. `grep foo "*" b. grep ./ * foo
 c. grep * foo d. grep '*' foo
 e. grep foo [*]`
66. In an empty directory, how many words are in file **pig** after this command line: `touch pig pig ; ls > pig`
- a. 0 b. 1 c. 4 d. 2 e. 3
67. What is the output of this command line in an empty directory:
`touch .a .b .c ; echo .*`
- a. no output
 b. `.a .b .c`
 c. `. . . .a .b .c`
 d. an error message from `echo` saying `.*` does not exist
 e. `.*`
68. If 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 command: `sort -r foo foo | tail -4 | head -1`
- a. 96 b. 04 04 c. 98
 d. 02 e. 96 96
69. If 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 command: `cat foo foo | sort | tail -4 | head -1`
- a. 8 b. 4 c. 1
 d. no output e. 6
70. What is the output on your screen of this command line:
`echo hi > hi ; head hi > hi ; wc hi`
- a. 2 2 4 hi b. 1 1 3 hi c. 0 0 0 hi
 d. no output e. 1 1 2 hi
71. How many lines are in file **out** after this command line:
`echo hi > dog > out > cat`
- a. 4 b. 0 c. 2 d. 3 e. 1
72. In an empty directory, how many words are in file **out** after this command line: `touch a ; ls > out`
- a. 4 b. 1 c. 2 d. 3 e. 0

73. What is in the file **x** after this command line:
`echo foo > a ; rm b ; echo bar >> b ; cp a b > x`
- a. **foo** b. no such file (nonexistent)
 c. **foo** followed by **bar** d. **bar**
 e. nothing (empty file)
74. What is the output on your screen after this command line:
`echo hi > ls ; cat ls > wc`
- a. no output on screen b. 1 1 3
 c. **hi** d. **ls**
 e. 1 1 2
75. Which command line creates a directory into which anyone can put a file, but in which nobody can see the names of the files that are there?
- a. `mkdir protected ; chmod 777 protected`
 b. `mkdir protected ; chmod 333 protected`
 c. `mkdir protected ; cd protected ; chmod go+wx .`
 d. `mkdir protected ; cd protected ; chmod go-x .`
 e. `mkdir protected ; chmod 777 .`
76. Which command pipeline outputs the count of the number of pathnames (including all subdirectories) that lie under the current directory?
- a. `dir / | wc` b. `ls / | wc`
 c. `find . | wc` d. `ls . | wc`
 e. `file . | wc`
77. Which of these commands makes a file owned by me, also executable by me?
- a. `chmod u+x ./myfile` b. `umask 777 myfile`
 c. `chmod x+u myfile` d. `umask 111 myfile`
 e. `chmod x=u ./myfile`
78. Which command pipeline outputs the count of the number of manual page titles that contain the keyword "sort"?
- a. `wc man sort` b. `wc -k sort`
 c. `man sort ; wc` d. `man sort | wc`
 e. `man -k sort | wc`

79. What is the output of this command line in an empty directory:
`touch .1 .2 .3 4 5 6 ; echo .*`
- `. . . .1 .2 .3`
 - `.1 .2 .3 4 5 6`
 - `.*`
 - `4 5 6`
 - an error message from `echo` saying `.*` does not exist
80. How many arguments are passed to the command by the shell on this command line: `<cow cow "-x" -y '-z' >cow cow`
- 3
 - 4
 - 2
 - 5
 - 6
81. What is the output on your screen of this command line:
`umask 574 ; mkdir newdir ; ls -ld newdir`
- `d-w-rwx-wx 1 me me 0 Oct 1 07:55 newdir`
 - `dr-xrwxr-- 1 me me 0 Oct 1 07:55 newdir`
 - `d-w-----w- 1 me me 0 Oct 1 07:55 newdir`
 - `d-w-----wx 1 me me 0 Oct 1 07:55 newdir`
 - `dr--rw-r-- 1 me me 0 Oct 1 07:55 newdir`
82. In a directory containing one file named `dog`, what is the output on your screen after this command line: `1>/dev/null ls *`
- `bash: 1>/dev/null: command not found`
 - `ls: *: No such file or directory`
 - `*`
 - `dog`
 - no output
83. Which of the following statements is true about this command line:
`>foo file bar haven`
- The command `foo` sees three arguments.
 - The command `file` sees three arguments.
 - Error: The command name is missing from the command line.
 - The command `file` sees two arguments.
 - The command `foo` sees only two arguments
84. What is the output on your screen after these command lines:
`echo one >x ; cp x y ; echo two >>y`
`sort x >y ; cat y`
- `two`
 - `one` followed by `two`
 - `one`
 - no output
 - `two` followed by `one`

85. Which command below removes *only* this five-character file name containing a special character (and no others): `date?`
- `rm date/?`
 - `rm date*`
 - `rm ./date?`
 - `rm ./date*`
 - `rm date\?`
86. If file `/a` contains 30 lines, and file `/b` contains 50 lines, then how many lines are output on your screen by this command line:
`cat /a | sort /b`
- 0
 - 80
 - 50
 - 20
 - 30
87. What is the output on your screen of this command line:
`umask 674 ; touch newfile ; ls -l newfile`
- `--w--wxr-x 1 me me 0 Feb 20 07:55 newfile`
 - `-rw-rwxr-- 1 me me 0 Feb 20 07:55 newfile`
 - `-----w- 1 me me 0 Feb 20 07:55 newfile`
 - `---x----wx 1 me me 0 Feb 20 07:55 newfile`
 - `-rw-rw-r-- 1 me me 0 Feb 20 07:55 newfile`
88. How many arguments are passed to the command by the shell on this command line: `<bar bar -b "-a" '-r' >bar bar bar`
- 5
 - 3
 - 4
 - 6
 - 7
89. What is the output on your screen of this command line:
`echo wc >wc ; wc wc >wc ; head wc`
- `wc`
 - `1 1 2 wc`
 - no output
 - `0 0 0 wc`
 - `1 1 3 wc`
90. How many arguments are passed to the command by the shell on this command line: `<cow cow "-x "-y '-z' >cow cow`
- 3
 - 6
 - 7
 - 4
 - 5
91. What is the output on your screen after these command lines:
`echo one >x ; ln x y ; echo two >>y`
`sort x >y ; cat y`
- `one` followed by `two`
 - no output
 - `two`
 - `two` followed by `one`
 - `one`

92. What is the output on your screen after this command line:
`echo 1 >x ; ln x y ; echo 2 >>y ; sort x`
 a. 1 followed by 2 b. 2 followed by 1 c. 1
 d. no output e. 2
93. Which command below removes *only* this four-character file name containing a special character (and no others): `abc*`
 a. `rm abc*` b. `rm abc*` c. `rm abc*`
 d. `rm abc/*` e. `rm abc/**`
94. How many lines are in the file `bar` after this command line:
`echo hi >x ; echo ho >>x ; cat x >bar`
 a. 1 b. 6 c. 0 d. 4 e. 2
95. How many arguments does the shell pass to this `echo` command:
`echo " 1 2 "three ' 4 ' five"6"`
 a. 1 b. 9 c. 3 d. 5 e. 4
96. What is the output on your screen after these command lines:
`echo one >x ; ln x y ; echo ten >y`
`echo two >x ; cat y`
 a. one
 b. two
 c. one followed by ten and two
 d. no output on screen
 e. ten
97. How many arguments does the shell pass to this `echo` command:
`echo "cow "y " bat 'man x' " pig'a "hop' a b`
 a. 5 b. 6 c. 11 d. 4 e. 7
98. If 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 command: `cat foo foo | cat | tail -4 | head -1`
 a. 8 b. 9 c. 5 d. 7 e. 6
99. If file `twenty` contains twenty lines, and file `thirty` contains thirty lines, then how many lines are output on your screen by this command line:
`tail thirty | cat twenty`
 a. 50 b. 30 c. 20 d. 0 e. 21

100. What is the output of this command line if run in an empty directory:
`touch A a ; echo * >"*" ; ls`
 a. `A a >*` b. `* A a` c. `A a >A a`
 d. No output e. `* >*`
101. In an empty directory, how many lines are in file `foo` after this command line: `ls nosuchfile . .. 2>foo`
 a. 3 b. 1 c. 4 d. 0 e. 2
102. In an empty directory, how many arguments are passed to the `cat` command in this command line: `touch a1 a2 ba ca ; cat a*`
 a. 3 b. 1 c. 2 d. none e. 4
103. What would you type to change the permissions on a file to `rw-r--r--`?
 a. `chmod 311 file` b. `chmod 644 file`
 c. `chmod 211 file` d. `chmod 344 file`
 e. `chmod 244 file`
104. What is the output of this command line in an empty directory:
`touch .a .b .c ; echo [.]*`
 a. an error message from `echo` saying `[.]*` does not exist
 b. no output
 c. `[.]*`
 d. `. . .a .b .c`
 e. `.a .b .c`
105. What is the output of this command line in an empty directory:
`touch 1 .1 23 .23 456 ; echo [12]*`
 a. `1 .1 23 .23 456`
 b. an error message from `echo` saying `[ab]*` does not exist
 c. `[12]*`
 d. `1 23`
 e. `1 .1 23 .23`
106. What is the output on your screen of this command line:
`echo wc >wc ; wc wc >wc ; cat wc`
 a. `0 0 0 wc` b. `1 1 2 wc` c. no output
 d. `1 1 3 wc` e. `wc`

107. Which of the command lines below can generate a non-empty file?
- `grep pattern file >file`
 - `ls -ls file >file`
 - `sort -r file file >file`
 - `touch file >file`
 - `head -1 file >file`
108. How many arguments does the shell pass to this `echo` command:
`echo ' one two ' three ' four ' 5'6'`
- 5
 - 9
 - 6
 - 4
 - 1
109. If 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 command:
`cat foo foo | sort | uniq | tail -4 | head -1`
- 1
 - 6 6
 - 6
 - 4
 - 5
110. How many lines are in file `out` after this command line:
`echo hi >dog >cat >out`
- 4
 - 3
 - 2
 - 0
 - 1
111. In an empty directory, how many words are in file `out` after this command line:
`touch 1 2 3 2 1 ; ls >out`
- 0
 - 4
 - 5
 - 3
 - 6
112. How many arguments does the shell pass to this `echo` command:
`echo 'It's a bird! It's a plane!'`
- 2
 - 5
 - 3
 - 4
 - 1
113. If file `/a` contains 3 lines, and file `/b` contains 5 lines, then how many lines are in file `/c` after this command line:
`cat /a /b >/c ; sort /c >/c ; sort /c /a /b >/c`
- 16
 - 0
 - 5
 - 3
 - 8
114. Which command pipeline outputs the count of the number of pathnames (including all subdirectories) that lie under the `/etc` directory?
- `find /etc | wc`
 - `dir /etc | count`
 - `ls /etc | wc`
 - `ls /etc ; wc`
 - `man /etc ; wc`
115. How many arguments are passed to the command by the shell on this command line:
`<bar bar -b"-a '-r' >bar" bar >out`
- 2
 - 4
 - 5
 - 6
 - 3

116. What is in the file `out` after this command line:
`echo hi >x ; echo ho >>x ; cp x y >out`
- `hi` followed by `ho`
 - `ho`
 - no such file (nonexistent)
 - nothing (empty file)
 - `hi`
117. What is in the file `bar` after this command line:
`echo hi >x ; echo ho >x ; mv x y >bar`
- `hi` followed by `ho`
 - `hi`
 - no such file (nonexistent)
 - nothing (empty file)
 - `ho`
118. What is the correct syntax to redirect both standard output and standard error into the same output file?
- `command 2>out >out`
 - `command 2>&1 >out`
 - `command >out 2>&1`
 - `command 2>1 >out`
 - `command >out 2>1`
119. Given my directory `dir` and my file `dir/foo` owned by me, which permissions allow me to access and change or create new content (data) in the file `dir/foo` but not delete the file?
- Permissions `300` on directory `dir` and `200` on file `dir/foo`.
 - Permissions `400` on directory `dir` and `400` on file `dir/foo`.
 - Permissions `500` on directory `dir` and `600` on file `dir/foo`.
 - Permissions `100` on directory `dir` and `100` on file `dir/foo`.
 - Permissions `600` on directory `dir` and `700` on file `dir/foo`.
120. If file `twenty` contains twenty lines, and file `thirty` contains thirty lines then how many lines are output on your screen by this command line:
`tail twenty | cat thirty`
- 20
 - 0
 - 50
 - 40
 - 30
121. Which command line below outputs only lines 11-15 of the Unix password file?
- `tail -15 /etc/passwd | head -10`
 - `head -15 /etc/passwd | tail -5`
 - `head -15 /etc/passwd | tail -5 /etc/passwd`
 - `head -10 /etc/passwd | tail -15 /etc/passwd`
 - `tail -10 /etc/passwd | head -15 /etc/passwd`

122. What is contained in file **c** after this command line:
`echo foo >a ; ln a b ; echo bar >>b ; ln a c ; rm a`
- bar**
 - foo**
 - foo** followed by **bar**
 - no such file (nonexistent)
 - nothing (empty file)
123. How many arguments does the shell pass to this **echo** command:
`echo " one '2 three' 4 "five 6 ' 7 "8 ' >out`
- 4**
 - 3**
 - 6**
 - 5**
 - 2**
124. What is the output on your screen of this command line:
`umask 762 ; touch newfile ; ls -l newfile`
- `-----wx 1 me me 0 Oct 1 1:12 newfile`
 - `-----xr-x 1 me me 0 Oct 1 1:12 newfile`
 - `-rwxrw--w- 1 me me 0 Oct 1 1:12 newfile`
 - `-----r-- 1 me me 0 Oct 1 1:12 newfile`
 - `-rw-rw--w- 1 me me 0 Oct 1 1:12 newfile`
125. What is the output of this command line in an empty directory:
`cat *`
- `. ..`
 - `.`
 - no output on screen
 - `*`
 - an error message from **cat** saying `* does not exist`
126. What is the output on your screen after these command lines:
`echo one >x ; ln x y ; echo two >y`
`echo ten >x ; cat y`
- one** followed by **two** and **ten**
 - ten**
 - no output on screen
 - two**
 - one**
127. If file **/a** contains 20 lines, and file **/b** contains 30 lines, then how many lines are in file **/c** after this command line:
`sort /a /b >/c ; cat /a >>/b ; sort /c /b /a >/c`
- 0**
 - 50**
 - 70**
 - 80**
 - 120**

128. Which command line shows the current date?
- `bash >date ; cat date`
 - `echo date | bash`
 - `bash date`
 - `date | bash`
 - `bash <date`
129. How many lines are in the file **out** after this command line:
`echo hi >x ; echo ho >>x ; cat x x x >out`
- 2**
 - 0**
 - 6**
 - 1**
 - 3**
130. Which command line outputs inode/filename pairs for names in the current directory, sorted by inode number?
- `ls .* | sort -node`
 - `sort -n | ls -ai`
 - `ls -ai | sort -n`
 - `ls -node * > sort -n`
 - `ls -i * > sort -n`
131. If directory **/a** contains these seven two-character file names: **aa**, **ab**, **ac**, **ad**, **a?**, **a***, **a.**, then which command below will remove only the single two-character name **a*** from the directory (and no others)?
- `rm /a/a*`
 - `rm /a/a?`
 - `rm /a/*`
 - `rm /a*`
 - `rm "/a/a*"`
132. What is the output on your screen of this command line:
`echo pig >one ; echo bat | tail one`
- pig** followed by **bat**
 - bat**
 - an error message
 - pig**
 - bat** followed by **pig**
133. What is in the file **cow** after this command line:
`echo a >b ; echo b >a ; mv b a >cow`
- a**
 - b**
 - no such file (nonexistent)
 - a** followed by **b**
 - nothing (empty file)
134. What would you type to change the permissions on a file to **-wxr-x--x**?
- `chmod 311 file`
 - `chmod 351 file`
 - `chmod 654 file`
 - `chmod 321 file`
 - `chmod 214 file`

135. How many arguments are passed to the command by the shell on this command line: `<bat bat -b "-a -r" >bat bat bat`
 a. 7 b. 5 c. 4 d. 3 e. 6
136. If file **ten** contains ten lines, and file **twenty** contains twenty lines, then how many lines are output on your screen by this command line:
`cat twenty | sort ten`
 a. 0 b. 10 c. 60 d. 30 e. 20
137. How many arguments does the shell pass to this **echo** command:
`echo 'And it's not hard, it's just logical.'`
 a. 3 b. 6 c. 5 d. 4 e. 7
138. Which command below removes *only* this four-character file name containing a special character (and no others): **xyz?**
 a. `rm xyz/?` b. `rm xyz\?` c. `rm xyz//?`
 d. `rm -r xyz?` e. `rm xyz\?`
139. Which command line displays the contents of the Unix **passwd** file one page at a time?
 a. `cat /etc/passwd >more`
 b. `/etc/passwd >more`
 c. `more | /etc/passwd`
 d. `/etc/passwd | more`
 e. `more < /etc/passwd`
140. If 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 command: `sort foo foo | tail -5 | head -1`
 a. 1 1 b. 7 c. 9 d. 1 e. 5 5
141. Given my directory **dir** and my file **dir/bar** owned by me, which permissions allow me to delete the file **dir/bar** from the directory, but not change the content (data) in the file?
 a. Permissions 500 on directory **dir** and 500 on file **dir/bar**.
 b. Permissions 300 on directory **dir** and 400 on file **dir/bar**.
 c. Permissions 100 on directory **dir** and 500 on file **dir/bar**.
 d. Permissions 300 on directory **dir** and 200 on file **dir/bar**.
 e. Permissions 100 on directory **dir** and 300 on file **dir/bar**.

142. In an empty directory, what is the output on your screen after this command line: `touch a ; ls >wc -l`
 a. no output b. 0 c. 3
 d. 2 e. 1
143. Which command line below outputs only lines 5-10 of the file named **foo**?
 a. `tail -15 foo | head -5`
 b. `head -10 foo | tail -6`
 c. `head -5 foo | tail -10`
 d. `tail -10 foo | head -6`
 e. `head -15 foo | tail -5`
144. Which of the following VI/VIM key sequences will move the entire line on which the cursor resides to after the line that follows it (i.e. it would move line 5 to be line 6 and line 6 would become line 5)?
 a. `ddp` b. `ddP` c. `DDP` d. `:dp` e. `DDp`
145. If directory **/a** contains these seven two-character file names: **aa, ab, ac, ad, a?, a*, a.,** then which command below will remove only the single two-character name **a?** from the directory (and no others)?
 a. `rm /a/a[*]` b. `rm /a/a?` c. `rm /a/a*`
 d. `rm /a/a\?` e. `rm /a?`
146. In an empty directory, what is the output on your screen after this command line: `touch a ; ls | wc -l`
 a. 0 b. no output c. 3
 d. 2 e. 1
147. Which of the command lines below can generate a non-empty file?
 a. `tail -5 foo >foo` b. `cat foo >foo`
 c. `ls -i foo >foo` d. `sort -r foo >foo`
 e. `grep foo foo >foo`
148. If 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 command: `sort foo foo | tail -4 | head -1`
 a. 04 04 b. 96 c. 98
 d. 96 96 e. 01 01

149. What would you type to change the permissions on a file to `r-----rw-?`
- `chmod 122 file`
 - `chmod 322 file`
 - `chmod 654 file`
 - `chmod 406 file`
 - `chmod 102 file`
150. What is the output of this command line in an empty directory:
- ```
touch a .a bc .bc def ; echo [ab]*
```
- an error message from `echo` saying `[ab]*` does not exist
  - `a bc`
  - `[ab]*`
  - `a .a bc .bc`
  - no output
151. What is the output on your screen after these command lines:
- ```
echo 1 >x ; cp x y ; echo 2 >>y
sort x >y ; cat y
```
- 2 followed by 1
 - 2
 - 1 followed by 2
 - 1
 - no output
152. Which of the following commands will leave `file1` non-empty?
- `sort file1 > file1`
 - `wc file1 > file1`
 - `tail file1 > file1`
 - `head file1 > file1`
 - `cat file1 > file1`
153. In an empty directory, how many files are created by this command line:
- ```
touch a "b c" ' ' d e
```
- 5
  - 4
  - 6
  - 3
  - 7
154. Which of the command lines below can generate a non-empty file?
- `wc -l foo >foo`
  - `tail foo >foo`
  - `head -5 foo >foo`
  - `cat foo foo foo >foo`
  - `sort foo >foo`
155. In an empty directory, how many arguments are passed to the `rm` command in this command line: `touch a a1 a2 ba ca ; rm a*`
- 1
  - none
  - 2
  - 4
  - 3
156. If file `/a` contains 40 lines, and file `/b` contains 60 lines, then how many lines are output on your screen by this command line:
- ```
sort /a /b | cat /a | cat /b
```
- 60
 - 200
 - 40
 - 100
 - 160

157. Which of the following statements is true about this command line:
- ```
>dir/c cat dir/d
```
- The command is always invalid.
  - The command `cat` sees only one argument.
  - The command `cat` sees two arguments.
  - The command `dir/c` sees two arguments.
  - The command `dir/c` sees only one argument
158. In an empty directory, how many arguments are passed to the `cat` command in this command line: `date >a1 ; touch a2 ba ca ; cat a*`
- 2
  - 1
  - 3
  - 4
  - none
159. Which of the command lines below can generate a non-empty file?
- `grep pattern file >file`
  - `head -1 file >file`
  - `sort -r file >file`
  - `ls -1 file >file`
  - `cat file >file`
160. What is the output on your screen after these command lines:
- ```
echo 1 >x ; ln x y ; echo 2 >y
chmod 077 y ; cat x
```
- no output on screen
 - 1 followed by 2
 - 2
 - 1
 - an error message
161. What minimal permissions must you have on a directory to be able to execute successfully the command `ls .` from *inside* the directory?
- `--x`
 - `r-x`
 - `-wx`
 - `r--`
 - `rw-`
162. Which of the following statements is true about this command line:
- ```
<dir/c cat dir/d
```
- The command is always invalid.
  - The command `cat` sees two arguments.
  - The command `dir/c` sees two arguments.
  - The command `dir/c` sees only one argument
  - The command `cat` sees only one argument.

163. Given my directory **dir** and my file **dir/c** owned by me, which permissions allow me to access and change or create new content (data) in the file **dir/c** but not delete the file?
- Permissions **200** on directory **dir** and **200** on file **dir/c**.
  - Permissions **400** on directory **dir** and **400** on file **dir/c**.
  - Permissions **100** on directory **dir** and **100** on file **dir/c**.
  - Permissions **100** on directory **dir** and **200** on file **dir/c**.
  - Permissions **600** on directory **dir** and **700** on file **dir/c**.
164. What is the output of this command line if run in an empty directory:
- ```
touch A a ; echo * ">*"
a. A a >A a          b. * >*          c. A a
d. A a >*            e. No output
```
165. In an empty directory, what is the output on your screen after this command line: `ls 1>/dev/null nosuchfile`
- `ls: 1>/dev/null nosuchfile: No such file or directory`
 - no output
 - `ls: nosuchfile: No such file or directory`
 - `nosuchfile`
 - `ls: /dev/null: No such file or directory`
166. Which command below removes *only* this four-character file name containing a special character (and no others): `*xyz`
- `rm "*xyz"`
 - `rm "*"xyz"`
 - `rm *xyz`
 - `rm '*xyz'`
 - `rm '*xyz''`
167. What is the output on your screen of this command line:
- ```
echo bat >pig ; echo one | tail pig
a. one b. an error message
c. one followed by bat d. bat followed by one
e. bat
```
168. Which command line displays all the non-hidden names in the current directory that contain the letter **x** (and no others)?
- `echo ?x?`
  - `echo [x]`
  - `echo x*`
  - `echo *x*`
  - `echo *x`

169. Which of these commands makes a file owned by me, also readable by me?
- `chmod u+r ./myfile`
  - `chmod r+u myfile`
  - `umask 400 myfile`
  - `chmod r=u ./myfile`
  - `umask 300 ./myfile`
170. What is true about this command line:
- ```
date >ls ; ls -ls ls >wc
a. The wc command counts the output of the ls command.
b. The shell finds and executes three different commands.
c. The ls command is executed more than once.
d. The ls command receives the output of date on standard input.
e. The file wc has one line in it.
```
171. If file **/a** contains 30 lines, and file **/b** contains 50 lines, then how many lines are in file **/c** after this command line:
- ```
cat /a /b >/c ; sort /c >/c ; sort /c /a /b >/c
a. 0 b. 30 c. 50 d. 80 e. 160
```
172. What is the possible output on your screen of this command line:
- ```
echo wc >date ; sort date >date ; cat date
a. 1 6 28 date
b. 1 6 29 date
c. no output on screen
d. wc
e. Fri Mar 16 12:00:00 EST 2012
```
173. What is the output on your screen of this command line:
- ```
umask 475 ; mkdir newdir ; ls -ld newdir
a. dr--rwxr-x 2 it it 400 Jul 3 8:00 newdir
b. d-wx----w- 2 it it 400 Jul 3 8:00 newdir
c. dr-xrwxr-x 2 it it 400 Jul 3 8:00 newdir
d. d-wxrwx-w- 2 it it 400 Jul 3 8:00 newdir
e. d-w-----w- 2 it it 400 Jul 3 8:00 newdir
```
174. In an empty directory, what is the output on your screen after this command line: `ls nosuchfile 2>out`
- `nosuchfile 2 not found`
  - no output
  - `nosuchfile`
  - `nosuchfile not found`
  - `2 not found`

175. Which command line shows just the count of lines in the file?
- `wc file | awk '[print $1]'`
  - `wc file | awk '[print #1]'`
  - `wc file | awk '{print #1}'`
  - `wc file | awk '{print $1}'`
  - `wc file | awk '{print 1}'`
176. Which command line tells you the recursive count of all pathnames under the current directory and all subdirectories?
- `wc "$PWD"`
  - `wc .`
  - `ls | wc`
  - `wc *`
  - `find | wc`
177. If 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 command: `cat foo foo | sort -r | head -4 | tail -1`
- 5
  - 9
  - 8
  - 7
  - 6
178. In an empty directory, how many words are in file `cow` after this command line: `touch dog dog cat ; ls >cow`
- 3
  - 0
  - 1
  - 4
  - 2
179. In an empty directory, what is in file `out` after this command line: `ls nosuchfile | wc -l >out`
- 0
  - 1
  - 11
  - nothing (empty file)
  - 10
180. What will appear on your screen if you execute this sequence of commands in your home directory: `ln /etc/passwd foo ; ln foo bar ; echo hi >bar ; cat bar`
- the contents of the password file followed by `hi`
  - `hi`
  - `bar`
  - an error message and then `hi`
  - an error message and then the contents of the password file
181. Given an existing file of yours named `wc`, what is the output on your screen of this command line: `echo hi >wc ; sort wc >wc ; cat wc`
- 2 2 4 wc
  - 1 1 3 wc
  - 0 0 0 wc
  - 1 1 2 wc
  - no output

182. Which command below is the best way to find a line containing a question mark (?) in the file `/etc/passwd`?
- `grep ? >/etc/passwd`
  - `grep ./? /etc/passwd`
  - `grep /etc/passwd ./?`
  - `grep '?' /etc/passwd`
  - `grep ? /etc/passwd`
183. What is the output on your screen of this command line: `umask 457 ; mkdir newdir ; ls -ld newdir`
- `dr--r-xrwx 2 me me 512 Oct 1 1:12 newdir`
  - `d-w--w---- 2 me me 512 Oct 1 1:12 newdir`
  - `dr-xr-xrwx 2 me me 512 Oct 1 1:12 newdir`
  - `d-wx-w---- 2 me me 512 Oct 1 1:12 newdir`
  - `d-wx-w-rwx 2 me me 512 Oct 1 1:12 newdir`
184. In a directory containing one file named `dog`, what is the output on your screen after this command line: `2>/dev/null ls nosuchfile`
- `bash: 2>/dev/null: command not found`
  - `nosuchfile`
  - `ls: nosuchfile: No such file or directory`
  - no output
  - `dog`
185. What is the output of this command line in an empty directory: `touch 1 2 3 .a .b .c ; echo .??*`
- `. .. 1 2 3 .a .b .c`
  - `.??*`
  - `. .. .a .b .c`
  - an error message from `echo` saying `.??*` does not exist
  - `.a .b .c`
186. Which command below removes *only* this five-character file name containing a special character (and no others): `yy?yy`
- `rm yy?yy`
  - `rm yy/?yy`
  - `rm yy\\?yy`
  - `rm yy/?yy`
  - `rm yy\?yy`
187. What is the output of this command line in an empty directory: `touch 1 2 3 .a .ab .abc ; echo [.]*`
- `[.]*`
  - no output
  - `.a .ab .abc`
  - an error message from `echo` saying `[.]*` does not exist
  - `. .. .a .ab .abc`

188. Which of the following command lines removes all the names in the current directory that are exactly three letters (alphabetic) long (and nothing else)?
- `rm [a-zA-Z,a-zA-Z,a-zA-Z]`
  - `rm [3][3][3]`
  - `rm [a-zA-Z][a-zA-Z][a-zA-Z]`
  - `rm ???`
  - `rm [azAZ][azAZ][azAZ]`
189. What is the output on your screen of this command line:  
`echo cow >foo ; echo dog | head -1 foo`
- cow followed by dog
  - dog followed by cow
  - cow
  - foo
  - dog
190. Which of these statements is true?
- If you give me write permission on a file owned by you, I can then use `chmod` to change its permissions.
  - You can make a hard link to a directory.
  - You only need "`r--`" permission on directory "`foo`" for "`ls -l foo`" to work.
  - The "`ln`" command takes two arguments, so the maximum number of hard links a file can have is two.
  - To make a hard link to file "`foo`" named "`bar`", file "`foo`" must exist.
191. What is the output on your screen after this command line:  
`echo one >x ; ln x y ; echo two >>y ; sort x`
- no output
  - one followed by two
  - one
  - two
  - two followed by one
192. Which of these command line will make file `foo` contain all of the content of file `a` followed by all of the content of file `b`?
- `echo a b >foo`
  - `cat a >foo ; cat b >>foo`
  - `cp a >foo ; cp b >>foo`
  - `mv a b >foo`
  - `cp a b >foo`

193. If directory `/a` contains these seven two-character file names: `aa`, `ab`, `ac`, `ad`, `a?`, `a*`, `a.`, then which command below will remove only the single two-character name `a*` from the directory (and no others)?
- `rm /a/a\*`
  - `rm /a*`
  - `rm /a/*`
  - `rm /a/a*`
  - `rm /a/a?`
194. If file `/a` contains 7 lines, and file `/b` contains 5 lines, then how many lines are in file `/c` after this command line:  
`cat /a /b >/c ; sort /c >/c ; sort /c /a /b >/c`
- 24
  - 12
  - 7
  - 0
  - 5
195. What would you type to change the permissions on a file to `--x-wx-w-`?
- `chmod 121 file`
  - `chmod 122 file`
  - `chmod 654 file`
  - `chmod 132 file`
  - `chmod 322 file`
196. What is the output on your screen after this command line:  
`echo xx >z ; ls z > wc`
- 1 1 2
  - 2
  - 1 1 3
  - 3
  - no output
197. What is the output on your screen after this command line:  
`echo hi >a ; cp a b | wc -c`
- no output
  - 2
  - 0
  - 3
  - 1
198. In an empty directory, how many arguments are passed to the `cat` command in this command line: `touch a1 a2 ac ba .a ; cat a*`
- 1
  - 4
  - 3
  - 2
  - none
199. How many arguments does the shell pass to this `echo` command:  
`echo " 1 '2 3' 4 "5 6 ' 7 "8 ' >out`
- 2
  - 6
  - 4
  - 5
  - 3
200. In an empty directory, how many arguments are passed to the `wc` command in this command line:  
`date >o1 ; touch a1 b2 out >o1 ; wc o*`
- 3
  - 1
  - 2
  - 5
  - 4