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練習問題

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1年間無料アップデート

Exam : 102-500

Title : LPI Level 1

Version : DEMO

Topic 1, Shells, Scripting and Data Management

1.What output will the following command sequence produce?

```
echo '1 2 3 4 5 6' | while read a b c; do
```

```
echo result: $c $b $a;
```

```
done
```

A. result: 3 4 5 6 2 1

B. result: 1 2 3 4 5 6

C. result: 6 5 4

D. result: 6 5 4 3 2 1

E. result: 3 2 1

Answer: E

Explanation:

The while loop reads a line from the standard input and splits it into words using the IFS variable, which by default contains spaces, tabs, and newlines. The read command assigns the first word to the variable a, the second word to the variable b, and the rest of the line to the variable c. Therefore, in this case, a=1, b=2, and c=3 4 5 6. The echo command prints the values of c, b, and a in reverse order, separated by spaces. The output is result: 3 2 1. The loop terminates after reading the first line, since there is no more input to read.

Reference: Bash while Loop | Linuxize, Bash Scripting - While Loop - GeeksforGeeks

2.When the command echo \$ outputs 1, which of the following statements is true?

A. It is the process ID of the echo command.

B. It is the process ID of the current shell.

C. It is the exit value of the command executed immediately before echo.

D. It is the exit value of the echo command.

Answer: C

Explanation:

The \$? variable in bash is a special parameter that holds the exit status of the last command executed in the current shell. The exit status is a numerical value that indicates whether the command was successful (zero) or failed (non-zero). The echo command simply prints its arguments to the standard output. Therefore, when the command echo \$? outputs 1, it means that the previous command failed with an exit status of 1.

Reference: [LPI Linux Essentials - Topic 103: Command Line Basics]

[Bash Special Parameters]

[Exit status - Wikipedia]

3.Which command makes the shell variable named VARIABLE visible to subshells?

A. export \$VARIABLE

B. export VARIABLE

C. set \$VARIABLE

D. set VARIABLE

E. env VARIABLE

Answer: B

Explanation:

The export command makes the shell variable named VARIABLE visible to subshells. This means that any child process that is spawned from the current shell will inherit the value of VARIABLE. The export command does not need a dollar sign (\$) before the variable name, as that would expand the variable to its value. The set command only affects the current shell and does not export the variable to subshells. The env command can be used to run a command in a modified environment, but it does not export the variable to subshells either.

Reference: [LPI Linux Essentials - Topic 105: Shells, Scripting and Data Management]

[LPI Linux Administrator - Exam 102 Objectives - Topic 105: Shells and Shell Scripting]

4.What output will the command seq 10 produce?

- A. A continuous stream of numbers increasing in increments of 10 until stopped.
- B. The numbers 1 through 10 with one number per line.
- C. The numbers 0 through 9 with one number per line.
- D. The number 10 to standard output.

Answer: B

Explanation:

The seq command in Linux is used to print a sequence of numbers, which can be piped to other commands or used in for loops and bash scripts¹. The command can generate a list of integers or real numbers, with options to control the start, end, and increment of the sequence. The general syntax of the command is seq [options] specification¹.

If you launch seq with a single number as a command-line parameter, it counts from one to that number. It then prints the numbers in the terminal window, one number per line². For example, seq 10 will produce the following output:

```
1
2
3
4
5
6
7
8
9
10
```

Therefore, the correct answer is

- B. The numbers 1 through 10 with one number per line.

Reference: 1: 10+ Seq Commands with Examples in Linux – LinuxWizardry 2: How to Use the seq Command on Linux - How-To Geek

5.By default, the contents of which directory will be copied to a new user's home directory when the account is created by passing the -m option to the useradd command? (Specify the full path to the directory.)

Answer: /etc/skel

Explanation:

The `/etc/skel` directory contains files and directories that are used as a template for creating a new user's home directory. The `useradd` command uses the `-m` (or `--create-home`) option to create the user home directory as `/home/username` and copy the files from `/etc/skel` to it. The files in `/etc/skel` are typically initialization files such as `.bashrc`, `.profile`, and `.bash_logout` that set the user's environment variables, aliases, and other preferences. The system administrator can customize the `/etc/skel` directory to provide a consistent and convenient initial setup for new users.

Reference: <https://www.howtouselinux.com/post/create-new-user-with-home-directory-in-linux>
<https://linuxize.com/post/how-to-create-users-in-linux-using-the-useradd-command/>