

Bash Scripting Knowledge Check Solutions

Course Outline

1. Variables
2. Arithmetic
3. Comparisons and Operators
4. If Statements
5. If / Else If / Else Statements
6. For Loops
7. While Loops

Variables

```
#!/bin/bash
MY_STR="Hi there!"
echo 'My string is: $MY_STR'
echo "My string is: $MY_STR"
```

1. What will be the first line output by this script?

```
My string is: Hi there!
```

2. What will be the second line output by this script?

```
My string is: $MY_STR
```

```
./example_script 0 1 2
```

```
#!/bin/bash
echo $0
echo "Printing $3, $2, $1"
echo $#
```

3. What will be the first line output by this script?

```
./example_script
```

4. What will be the second line output by this script?

```
Printing 2, 1, 0
```

5. What will be the third line output by this script?

```
3
```

Arithmetic

```
./example_script 2 3
```

```
let "num_1 = $1 * $2"
echo $num_1
expr $1 \* $2
expr $1 * $2
num_2=$(( num_1 / $1 ))
echo $num_2
```

1. What will be the first line output by this script?
☐ 2
☐ 3
☒ 6
☐ Error
2. What will be the second line output by this script?
☐ 2
☐ 3
☒ 6
☐ Error
3. What will be the third line output by this script?
☐ 2
☐ 3
☐ 6
☒ Error
4. What will be the fourth line output by this script?
☒ 2
☐ 3
☐ 6
☐ Error

```
#!/bin/bash
expr $RANDOM % 100
```

5. What will this script output?
A random number between 0 and 100

Comparisons and Operators

```
#!/bin/bash
[ -z $1 ]
echo $?
```

1. What is the output if the script is called like so?: `./example_script Hello`
☒ 0
☐ 1
☐ Hello
☐ No output
2. What is the output if the script is called like so?: `./example_script`
☐ 0
☒ 1
☐ Hello
☐ No output

If Statements

```
#!/etc/bash
num_a=1000
num_b=1001
```

```
if [ $num_a != $num_b ]
then
    echo "$num_a and $num_b are not the same"
fi
```

What is the output of this script?

- ☐ 1000 and 1001 are not the same
- ☒ No output

If / Else If / Else Statements

```
#!/etc/bash
if [ $1 -gt $2 ]
then
    echo "$1"
elif [ $2 -gt $1 ]
then
    echo "$2"
else
    echo "--"
fi
```

What does this script do?

It prints the larger of the two numbers provided, or '--' if they are the same

For Loops

```
#!/bin/bash
for val in {1..10}
do
    echo $val
done
```

1. What will be the first line output by this script?

1

2. What will be the fifth line output by this script?

5

```
./example_script /usr
```

```
#!/bin/bash
for entry in $(ls $1)
do
    echo $entry
done
```

3. What will be the first line output by this script?

It depends on the OS distribution but probably bin

4. Briefly describe what this script is doing

It prints out each entry in the given directory

While Loops

```
#!/bin/bash
counter=5
while [ counter -gt 0]
do
    echo $counter
done
```

1. What will be the first line output by this script?

5

2. What will be the fifth line output by this script?

5 ; there is no decrement changing the counter so this will loop forever.

```
#!/bin/bash
counter=1
while [ $counter -lt 20]
do
    echo $counter
    if [ $((counter % 2)) -eq 0]; then
        echo "even"
    fi
    let "counter = counter + 1"
done
```

3. What will be the fourth line output by this script?

3

4. What is the sixth line output by this script?

even