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
   - [x] 6
   - [ ] Error
2. What will be the second line output by this script?
   - [ ] 2
   - [ ] 3
   - [x] 6
   - [ ] Error
3. What will be the third line output by this script?
   - [ ] 2
   - [ ] 3
   - [ ] 6
   - [x] Error
4. What will be the fourth line output by this script?
   - [x] 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
   ```

- [x] 0
- [ ] 1
- [ ] Hello
- [ ] No output

1. What is the output if the script is called like so?:

```
./example_script
```

- [ ] 0
- [x] 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
- [x] 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?
   ```
   My string is: 1
   ```
2. What will be the fifth line output by this script?
   ```
   My string is: 5
   ```

While Loops