

Total 60 pts

CS 120 Fall 2016 (MORE PRACTICE) QUIZ 3: While Loop

NAME: SOLUTION

*Look at the following code fragment and answer questions Q1-Q3 below based on this code:

```
// Loop 1
int k = 0;
while ( k < 156 ) { k++; }
System.out.println(" k = " + k );
```

10 pts

Q1. How many times will the body of the loop be executed? _____

10 pts

Q2. How many times will the condition of the loop be checked? _____

10 pts

Q3. What is the value of the variable "k" that gets printed to the console window in the last line? _____

*Look at the following code fragment and answer questions Q4-Q6 below based on this code:

```
// Loop 2
int k = 0; k = 1; ← (see other side if you kept "int k = 0;")
while ( k < 100 ) {
    System.out.println(" k = " + k );
    k = k * 2;
}
```

10 pts

Q4. How many times will the body of the loop be executed? 7

10 pts

Q5. How many times will the condition of the loop be checked? 8

10 pts

Q6. Show everything that gets printed to the console window by the code above:

k = 1
k = 2
k = 4
k = 8
k = 16
k = 32
k = 64

(over)

60 pts total

CS 120 Fall 2016 (MORE PRACTICE) QUIZ 2: While Loop NAME: SOLUTION

*Look at the following code fragment and answer questions Q1-Q3 below based on this code:

```
// Loop 1
int k = 0;
while ( k < 156 ) { k++; }
System.out.println(" k = " + k );
```

- 10 pts Q1. How many times will the body of the loop be executed? 156
- 10 pts Q2. How many times will the condition of the loop be checked? 157
- 10 pts Q3. What is the value of the variable "k" that gets printed to the console window in the last line? 156

*Look at the following code fragment and answer questions Q4-Q6 below based on this code:

```
// Loop 2
int k = 0;
while ( k < 100 ) {
    System.out.println(" k = " + k );
    k = k * 2;
}
```

See other side of this solution, IF you changed this line to "int k = 1;"

- 10 pts Q4. How many times will the body of the loop be executed? Infinite
- 10 pts Q5. How many times will the condition of the loop be checked? Infinity (∞)!
- 10 pts Q6. Show everything that gets printed to the console window by the code above:

k = 0
k = 0
k = 0
⋮
⋮
⋮

(over)