

Java Quiz Bowl

A fun review of the Java you
should know from CMPT 201

If you don't know the answers -
this week is for you to study up!

Create a Google Doc

- Put your names at the top of the document and share it with
- dsalinasduron@westminstercollege.edu



Part 1:

10 seconds / question

What is the value of x
after this code:

```
int x = 5 / 2;
```

Will this code compile?

```
int x = 5;  
double y = x;
```

If so, what is the value of y?

If not, fix the code.

Will this code compile?

```
double d = 3.14;  
int i = d;
```

If so, what is the value of i?

What is the value of x that is printed out?

```
public class Query
{
    private int x = 5;

    public void output() {
        int x = 10;

        System.out.println(x);
    }
}
```

What are the values of i, j, and k after this code is run:

```
int i = 5;  
int j = i++;  
int k = ++i;
```


How many objects are created by this code:

```
String a = new String("hello");  
String b = a;
```



Part 2:

30 seconds / question

Write a for-loop that
prints out:

0 2 4 6 8

What variables are accessible from inside method “one()”?

```
public class Question {  
    public int a = 1;  
    private int b = 2;  
    public static int c = 3;  
    private static int d = 4;  
  
    public void one (int e){  
        int f = 5;  
    }  
    private void two (int g){  
        int h = 10;  
    }  
    public static void three (int i){  
        int j = 5;  
    }  
    private static void four (int m){  
        int n = 10;  
    }  
}
```

What variables are accessible from inside method "two()".

```
public class Question {  
    public int a = 1;  
    private int b = 2;  
    public static int c = 3;  
    private static int d = 4;  
    public void one (int e) {  
        int f = 5;  
    }  
    private void two (int g) {  
        int h = 10;  
    }  
    public static void three (int i) {  
        int j = 5;  
    }  
    private static void four (int m) {  
        int n = 10;  
    }  
}
```

What variables are accessible from inside method “three()”?

```
public class Question {  
    public int a = 1;  
    private int b = 2;  
    public static int c = 3;  
    private static int d = 4;  
    public void one (int e) {  
        int f = 5;  
    }  
    private void two (int g) {  
        int h = 10;  
    }  
    public static void three (int i) {  
        int j = 5;  
    }  
    private static void four (int m) {  
        int n = 10;  
    }  
}
```

Fill in the code to print all the elements of an array to the screen:

```
public void print (int []array) {  
  
}
```



Part 3:

1 minute / question

Write a Circle class with
one instance variable
(data field):

radius (double)

No methods necessary.

Given the current code,
what is radius' value?


```
public class Circle {  
    private double radius;  
  
}
```

Given the following code, what is name's value?

```
public class Person{  
    private String name;  
  
}
```


Add a mutator (*setter* method) to your Circle class that sets the radius to a specified value.

Add an accessor
(*getter* method) to your
Circle class that gets
the radius.




Now add a constructor that takes a double as a parameter.

Set the radius to the parameter.



Now add a default
constructor to your
Circle class.

Set the radius to 1.



Write a static method that calculates and returns the area of a circle, taking the radius as a parameter.

Write a line of code that creates a Circle object. You can assume this is being written in a main method.

Will this code compile and run?

```
public static void  
main(String[] args)  
{  
    Circle c1;  
    c1 = new Circle();  
    c1 = new Circle(10);  
}
```

Write a new class
ColoredCircle, that is a
child of the Circle class.

It should have one
additional instance
variable (type String)
that represents the
color of the
ColoredCircle

No methods or
constructors yet.

Add a default constructor that sets the radius to 1 and the color of the circle to black.

Is this code legal?

```
ColoredCircle c = new ColoredCircle();  
c.setRadius(100);
```

Which of the following code segments are legal?

```
Circle c1 = new  
ColoredCircle();
```

```
ColoredCircle c2 =  
new Circle();
```

If the ColoredCircle class had a setColor() method, is this code legal?

```
Circle c = new  
ColoredCircle();  
  
c.setColor("red");
```

Modify the code to make this
setColor call legal:

```
Circle c = new  
ColoredCircle();  
  
c.setColor("red");
```


What if both classes had their own (different) toString() methods? Which would run here:

```
Circle c = new  
ColoredCircle();  
  
c.toString();
```