Unit 2 Review #2   Name: _____

1. Write one line each to find the absolute value of x, the square root of x, and the 20th power of x:

```
int x = scan.nextInt();

double absx =

double sqrx =

double powerx =
```

2. Given integers a and be where a is less than b, write an expression that stores a random integer between a and b inclusive into n:

```
int n =
```

3. What is printed?

```
String str = "starts";
System.out.println(str.length());
```

4. What is printed?

```
String str = "starts";
System.out.println(str.indexOf("t"));
```

5. What is printed?

```
String str = "starts";
System.out.println(str.substring(3));
```

6. What is printed?

```
String str = "starts";
System.out.println(str.substring(1,3));
```

7. Complete the following method which is meant to return a String in "title" case, that is with the first character uppercase and the rest of the String lowercase. Assume the String has 2 or more characters. Examples: sending over "spooky" returns "Spooky" and sending "CAT" returns "Cat". Use a return call. Do not use a print call.

```
public String titleCase(String str)
{



}
```

8. Complete the following method which is meant to return a random letter from the second half of the given word. Assume the String has 2 or more characters. Use a return call. Do not use a print call.

```
public String randomFromSecondHalf(String str)
{




}
```

(continued on back)

Questions 9 through 14 use this class:

```
public class CTXXV
{
   private int ctx;

   public CTXXV()
   {
      ctx = 40;
   }

   public void doIt()
   {
      ctx++;
   }

   public void doIt(int n)
   {
      ctx+=n;
   }

   public int get_ctx()
   {
      return ctx;
   }
}
```

9. Write a line of code that creates a new CTXXV object named "acx":

10. Write a line of code that makes calls the doIt() method on acx.

11. Write a line of code that makes calls the doIt(int n) method on acx with 7.

12. Write a line of code the calls get_ctx().

13. What would be printed if we execute this call: `System.out.println(acx.get_ctx()); ?`

14. Could we add another constructor like the following? Why or why not?

```
public CTXXV(int n)
{
   ctx = n;
}
```

15. Could we add another method like the following? Why or why not?

```
public void doIt(int r)
   {
      ctx+=(int)(Math.random()*r);
   }
```

16. What is printed?

```
String str = "Whassup?";
System.out.println(str.substring(str.length()-3));
```

17. What is printed?

```
String str = "Whassup?";
System.out.println(str.substring(2,str.length()-3));
```