

Convert from base 10 into base 2

91 \_\_\_\_\_

Convert from base 2 to base 16

1000 1101 \_\_\_\_\_

What two parts do all variables (containers) need when you create them in Processing ?

\_\_\_\_\_

Fill in each blank with the correct answer/output. Assume each statement happens in order and that one statement may affect the next statement. If the code causes an error, write **ERROR** for the answer and ignore that line of code for the rest of the quiz.

```
double z = 75.9;    long x = 658;    String s = "He's trying to trick you";
int a = 14, b = 4;   char c = 'b';
```

System.out.print( 19 / 2 );	// LINE 1	1. _____
System.out.print( (double)a / b );	// LINE 2	2. _____
System.out.print( (a + 1) % 2 );	// LINE 3	3. _____
System.out.print( x % 2 == b % 2 );	// LINE 4	4. _____
System.out.print(c + 2);	// LINE 5	5. _____
c = c - 1;		
System.out.print(c);	// LINE 6	6. _____
z++;		
System.out.print(z);	// LINE 7	7. _____
System.out.print( a / 2 - b * 3 + x );	// LINE 8	8. _____
char var = (int)((x + a) / 10.0 + 0.5);		
System.out.print(var);	// LINE 9	9. _____
b = a * 6 - c + x / 10;		
System.out.print(b);	// LINE 10	10. _____

Consider the following method headings:

```
void getKillerDress(double price)
void driveToProm()
void driveToProm(int speed)
String getCompliment(Date d)
boolean isPlayer(int numDates)
```

- How many action methods are there: \_\_\_\_\_ How many information methods: \_\_\_\_\_
- List the methods that are overloaded: \_\_\_\_\_
- Write a method heading that would cause the following method to become overloaded:  
double mint(int gum)  
\_\_\_\_\_
- The fill() method in Processing and the hop() method in Jerroo are two examples of method overloading.  
True or False? \_\_\_\_\_

Given the following piece of code:

```
color c = color(124,17,242); color other = color(56,47,38);
int cRed = (int)red(c);           //red() returns the red value of the given parameter
int otherBlue = (int)blue(other); //blue() returns blue value of given parameter
float avg = (cRed + otherBlue)/2;
boolean ans = isItOver('y');
```

- 5) What would the following method call show on the screen: `print(avg)`? \_\_\_\_\_
- 6) How many parameters are there total? \_\_\_\_\_
- 7) Write the method heading for the `isItOver` () method: \_\_\_\_\_

Given the method below:

```
void diamond(float s) {
    translate(width/2,height/2);
    rotate(-PI/2);
    rect(0,0,s,s);
}
```

Use the space below to overload the `diamond()` method so that the user can change the size of the diamond drawn as well as the location of the diamond on the screen.

Write a method called `underground()` that draws the British underground logo (ask for picture). You should be able to change the logo's size and location. The  $(x,y)$  location of the object should correspond to the middle of the circle, and the size of the logo matches the size of the circle, too. The rectangle sticks out  $1/8$  of the size of the circle on both edges of the logo.