**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’;

1. \_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_\_\_\_\_\_\_\_

5. \_\_\_\_\_\_\_\_\_\_\_\_

6. \_\_\_\_\_\_\_\_\_\_\_\_

7. \_\_\_\_\_\_\_\_\_\_\_\_

8. \_\_\_\_\_\_\_\_\_\_\_\_

9. \_\_\_\_\_\_\_\_\_\_\_\_

10. \_\_\_\_\_\_\_\_\_\_\_\_

System.out.print( 19 / 2 ); // LINE 1

System.out.print( (double)a / b ); // LINE 2

System.out.print( (a + 1) % 2 ); // LINE 3

System.out.print( x % 2 == b % 2 ); // LINE 4

System.out.print(c + 2); // LINE 5

c = c - 1;

System.out.print(c); // LINE 6

z++;

System.out.print(z); // LINE 7

System.out.print( a / 2 – b \* 3 + x); // LINE 8

char var = (int)((x + a) / 10.0 + 0.5);

System.out.print(var); // LINE 9

b = a \* 6 – c + x / 10;

System.out.print(b); // LINE 10

**Consider the following method headings:**

void getKillerDress(double price)

void driveToProm()

void driveToProm(int speed)

String getCompliment(Date d)

boolean isPlayer(int numDates)

1. How many action methods are there:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ How many information methods:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. List the methods that are overloaded: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Write a method heading that would cause the following method to become overloaded:

double mint(int gum)  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The fill() method in Processing and the hop() method in Jeroo 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’);

1. What would the following method call show on the screen: print(avg) ? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How many parameters are there total? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 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.**