

1. Write down the values that will be printed to the screen.

```
int i = 4;
int j = 5;
int k = 6;
int z = 0;
double d = 2.0;
double e = 3.0;
double f = 4.0;
double a = 0.0;
a = k / i;
z = k / i;
System.out.println(a);
System.out.println(z);
a = (double)(k / f);
z = (int)(k / f);
System.out.println(a);
System.out.println(z);
a = (double)k / f;
z = k / (int)f;
System.out.println(a);
System.out.println(z);
a = k % i;
z = k % i;
System.out.println(a);
System.out.println(z);
a = (double)(i / j);
z = (int)(e / f);
System.out.println(a);
System.out.println(z);
a = (double)i / (double)j;
z = (int)e / (int)f;
System.out.println(a);
System.out.println(z);
a = d + e * f;
z = i * j + k;
System.out.println(a);
System.out.println(z);
a = 9.99;
a = a + a;
z = (int)9.99;
z = z * z
System.out.println(a);
System.out.println(z);
```

2. Create method headers for the following descriptions.

middleX takes no parameters and does not return a value.

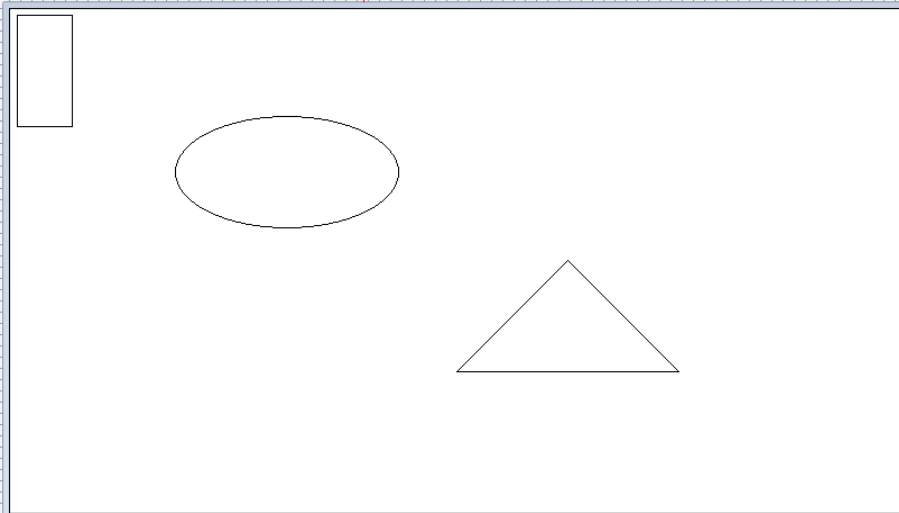
round takes a decimal-point number parameter and returns an integer

max3 takes three integer parameters and returns an integer

darkGray takes a Color object parameter and returns a Color object

3. Call each of the methods in question 2. If a value is returned, store the result in an object or variable of the appropriate data type.

4. Write the Processing code necessary to create the three small shapes.
Be close, not exact, with your values. The drawing space is 800×450 .



5. State the type of error:
syntax: illegal Java code
semantic: legal Java code, but an erroneous result
none: the code is legal and produces a correct result

```
// average three values
// drop any remainder from division
public void avg(int x, int y, int z) {
    int a = (x + y + z) / 3;
    return a;
}
```

```
// average three values
// drop any remainder from division
public int avg(int x, int y, int z) {
    int a = (x + y + z) / 3;
}
```

```
// average three values
// include any remainder from division
public double avg(int x, int y, int z) {
    int a = (x + y + z) / 3;
    return a;
}
```

```
// average three values
// include any remainder from division
public double avg(int x, int y, int z) {
    double a = (x + y + z) / 3;
    return a;
}
```

```
// create a new Color object with the color black
color b = new color(0, 0, 0);
```

```
// create a new Color object with the color black
Color b = New Color(0, 0, 0)
```

```
// create a new Color object with the color black
Color b = fill(0, 0, 0);
```