

Practice Quiz 1 (Arithmetic and Math Class)

Try to answer the following questions without using your notes or a computer.

1. Find the value of the **mystery** variable after each of the following code blocks.

```
int mystery = 7;
int a = 5;
mystery = mystery + 4;
mystery = mystery * a;
mystery /= 6;
```

```
double mystery = -2.0;
mystery = Math.pow(Math.abs(mystery), 2);
mystery = Math.floor(mystery + 1);
```

```
int mystery = 9;
mystery = (int) Math.pow(mystery, 1 / 2);
```

```
double mystery = 3.5;
mystery = Math.sqrt(Math.round(mystery + 0.25))
```

2. Write a program that declares and initializes an int variable called **radius** to represent the radius of a sphere. Then, calculate and print the volume of the sphere using Math methods.

3. Write a program that declares and initializes the four integer variables **x_1**, **x_2**, **y_1**, **y_2**, then finds and prints the:
 1. slope of the line going through (x_1, y_1) and (x_2, y_2) . You can assume that $x_1 \neq x_2$.
 2. midpoint of the line segment going through (x_1, y_1) and (x_2, y_2)