Exercise 1

File Name: Projectile.java

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| import java.util.Scanner;  class Projectile{    private final double G = 9.8;  public static void main(String[] args){  Scanner input = new Scanner(System.in);  System.out.print("Enter projectile initial velocity: ");  double initialVelocity = input.nextDouble();  Projectile prj = new Projectile();  double maxHeight = prj.calculateMaxHeight(initialVelocity);  System.out.printf("Maximum Height: %.2f", maxHeight);  }  public double calculateMaxHeight(double x){  return (Math.pow(x, 2) / (2 \* G));  }  } |

Exercise 2

File Name: PrintTest.java

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| class PrintTest{  public static void main(String[] args){  int a = 2, b = 3;  System.out.println("a + b = " + a + b);  System.out.println("a + b = " + (a + b));  System.out.println(a + b + " a + b");  }  } |

The first println displays “a + b = 23”, because it is adding on the string values of a, and then adding the string value of b, 2 and 3 respectively.

The second println displays “a + b = 5”, because with the ‘a + b’ in a bracket, it runs a calculation.

The third println displays “5 a + b”, because at first, it runs the calculation of ‘a + b’ as an integer variable is first seen in the method, then it adds the string “ a + b” onto it.

Exercise 3

File Name: DataType.java

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| class DataType{  public static void main(String[] args){  int num1 = 4, num2 = 6;  Calculation calc = new Calculation();  int num3 = calc.calcInt(num1, num2);  System.out.println("a + b = " + num3);  }  }  class Calculation{  public int calcInt(int x, int y){  return x + y;  }  } |