

# COS126 Data Types Activity - Section 1.2

Pair Activity: Command-line arguments, Data types, Computation, Type conversion.

1. Exercise 1.2.25. Write `WindChill.java`. Given two **double** command-line arguments, temperature  $t$  (in Fahrenheit) and wind speed  $v$  (in miles per hour), compute and print  $W$  the wind chill temperature:  $W = 35.74 + 0.6215t + (0.4275t - 35.75)v^{0.16}$

Use `Math.pow(a, b)` to compute  $a^b$

```
/*
 *   Compute the wind chill temperature
 */
public class WindChill {
    public static void main(String[] args) {
        // input temperature and wind velocity
        double t = Double.parseDouble(
            args[0] );
        double v =
            Double.parseDouble(
            args[1] );

        // compute wind chill

        // output wind chill
        System.out.println(
            W );
    }
}
```

2. Web Exercise 1.2.1. Write `Distance.java`. Given two **integer** command-line arguments,  $x$  and  $y$ , compute the Euclidean distance of the point  $(x, y)$  from the origin  $(0, 0)$ .

$$distance = \sqrt{x^2 + y^2}$$

Do NOT use `Math.pow(x, 2)` to compute  $x^2$ .

```
/*
 *   Compute the distance from (x, y) to the origin.
 */
public class Distance {
    public static void main(String[] args) {
        // input point coordinates
        int x = Integer.parseInt(
            args[0] );
        int y = Integer.parseInt(
            args[1] );

        // compute distance

        // output distance

    }
}
```

3. Exercise 1.2.34. Write `ThreeSort.java`. Given three integer command-line arguments, print them in ascending order. Use `Math.min()` and `Math.max()`.

```
/*
 * Print the three integer inputs in ascending order.
 *
 */
public class ThreeSort {
    public static void main(String[] args) {
        // Input

        // Compute the order

        // Output in ascending order

    }
}
```

- Recommended Exercises: 1.2.4, 1.2.6, 1.2.9, 1.2.13, 1.2.16, 1.2.20 (hint: study Program 1.2.5 on p. 33), 1.2.30