

cs171: Introduction to Programming
Variables, IO, Arithmetic

key concepts: how to store information, how to obtain input from the user, how to perform simple calculations.

1. `RectangleArea1.java`

- Write a program to compute the area of a rectangle given its length and width.
- $\text{area} = \text{length} * \text{width}$
- Key concepts: integer variables, multiplication.

2. `CircleArea1.java`

- Write a program to compute the area of a circle given its diameter.
- $\text{area} = \text{radius} * \text{radius} * \text{PI}$
- Key concepts: double type, math library

3. `RectangleArea2.java`

- Write a program to compute the area of a rectangle given its length and width which are input from the user.
- `Scanner` class allows for typed input
- Key concepts: reading user input

4. `CircleArea2.java`

- Write a program to compute the area of a circle given its diameter which is read from the user.
- Use double for diameter to allow for non-integer input.
(hint: `keyboard.nextDouble()`).
- Key concepts: reinforce double, user input, math library.