Overview

You are trying to be mindful of your eating (e.g. avoid eating too much of anything that is “bad” for you), so you were wondering what the area difference was between a slice of pizza from a medium (12”, 6 slices) versus a large pizza (16”, 8 slices). You note that not only is there a difference in the sizes of the pizzas, but they are cut into a different number of slices.

To help with your mindful eating habit, write a program that will determine the area of a single slice of pizza, assuming each slice is identical.

Questions to answer:

1. What pieces of information do you need in order to perform the needed calculations?
2. What are the types of the information?
3. What are the formulas needed for the calculations?
4. What are the units of measure for each piece of information?

Sample Output 1

For a 16" pizza of 8 slices, one slice has 25.132741228718345 square inches of pizza.

Sample Output 2

For a 10" pizza of 10 slices, one slice has 7.853975 square inches of pizza.

Hints

1. You need to think about what variables would be helpful in solving this problem. Since the size of the pizza (in whole inches) and the number of slices of pizza (another whole number) are the data needed to perform the calculation, you should have variables for them.
2. Don’t forget that there is a difference between a radius and a diameter of a circle.
3. Use the value 3.14159 for the value of Pi.
4. The number of square inches shown in the sample output above may not be exactly what you see here…it depends on precisely how you calculate the area. But it should be VERY close! Think carefully about types.
5. In the output (shown in the sample above), each of the numbers should **not** be printed as part of a literal string, but should be the value of some variable.

6. **All** of your code should go in the main method for this program.

7. To compare a medium (e.g. 12” cut into 6 slices) pizza to a large (e.g. 16” cut into 8 slices) pizza, you will actually need to **run the program twice**, which means that your code is not doing the actual comparison, you are. Just **change the numbers for variables in the program** and hit the run button again.

**Submission**

Submit your program as **HW1-Pizza**.