Project 2: Calculating the best pizza deal

Write a program that decides, among competing candidate pizzas, which is the best deal, in the sense of the smallest cost per unit area. Pizzas come in three shapes: round, square, and oval (elliptical). The area of an oval is $\frac{\pi ab}{4}$, where a and b are the longer and shorter dimensions of the oval. Here is a typical session, with the user input in gray. You can see that the input dialog varies, depending on the shape of the pizza.

```
Pizza Number 1:
Pizza shape (round, square, oval): round
Pizza diameter: 14.2
Pizza price: 13.59
Pizza area is 158.37 square inches
Cost per square inch is $0.086.
Enter Another? (Y/N):  Y

Pizza Number 2:
Pizza shape (round, square, oval): square
Pizza side length: 12.3
Pizza price: 14.04
Pizza area is 151.29 square inches
Cost per square inch is $0.093.
Enter Another? (Y/N):  Y

Pizza Number 3:
Pizza shape (round, square, oval): oval
Pizza longer dimension: 14.1
Pizza shorter dimension: 8.3
Pizza price: 12.39
Pizza area is 91.92 square inches
Cost per square inch is $0.135.
Enter Another? (Y/N):  N

The best deal is pizza number 1 (ROUND 14.20)
```

The output dialog also varies, depending on the shape of the chosen pizza. Here are some other examples that illustrate how the output should look when the winner is a square or an oval.

```
Pizza Number 1:
Pizza shape (round, square, oval): square
Pizza side length: 10.2
Pizza price: 23.22
Pizza area is 104.04 square inches
Cost per square inch is $0.223.
Enter Another? (Y/N):  N

The best deal is pizza number 1 (SQUARE 10.20 x 10.20)

Pizza Number 1:
Pizza shape (round, square, oval): oval
Pizza longer dimension: 13.1
Pizza shorter dimension: 8.2
Pizza price: 19.99
Pizza area is 84.37 square inches
Cost per square inch is $0.237.
Enter Another? (Y/N):  N

The best deal is pizza number 1 (OVAL 13.10 x 8.20)
```

When deciding on the pizza with the smallest cost per unit area, you may break ties arbitrarily.

Refer to the class examples from Monday when considering how this program should look. The majority of the program will operate inside a loop, and you will need to use an "if" statement to determine which pizza geometry the user has selected.