1. **SphereVolume**

Write a **ConsoleProgram** named **SphereVolume** that asks the user the *radius* of a sphere and then computes the *volume* using the following formula:

\[ V = \frac{4}{3} \pi r^3 \]

Note that there is no "raise to a power" operator in Java. Given the arithmetic operators you know Java has, how can you write an expression that achieves the desired result?

2. **CylinderAreaAndVolume**

Write a **ConsoleProgram** named **CylinderAreaAndVolume** that asks the user the *radius* of the base and the *height* of a cylinder and then computes the *surface area* and the *volume* using the following formulas:

\[ A = 2\pi r^2 + 2 \pi rh \]
\[ V = \pi r^2 h \]

3. **TicTacToeBoard**

Write a **GraphicsProgram** named **TicTacToeBoard** that draws a picture similar to the Tic Tac Toe board shown below. At the beginning, the program should define two integer variables for setting the width (as 50) and height (as 50) of the picture, and then draw the picture using these variables.

![Tic Tac Toe Board](image)

4. **House based on variables**

Write a **GraphicsProgram** named **House** that generates a picture similar to the following. At the beginning, the program should define two integer variables for setting the width and height of the house, and then draw the picture using these variables. The location of the door and the windows should be aligned. **(Extra challenge: Also change the scale/dimensions of the windows according to the house size)**