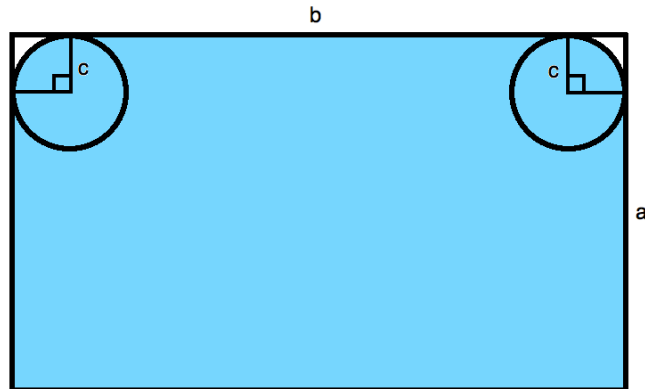


Team: \_\_\_\_\_



Instructions: (check these off when you're done)

If you have not finished your MATLAB® functions for area and perimeter, please do so now.

Measure a, b, and c to the nearest whole centimeter.

a =

b =

c =

Now imagine your shape was the face of a block. Your block is 2 cm thick. Write a script that uses your area function to calculate the volume of your block.

Find the mass of your block in grams if the density of your block is 0.7 g/cc.

Remember that the equation for density is:  $density = \frac{mass}{volume}$

We learned before that force is mass x acceleration, or  $F = ma$ . Acceleration is a vector that can be represented as an array with three elements: x, y, and z. If we assign the up/down direction to the z axis then acceleration of objects on earth is  $-10m/s^2$  in the z direction. Represent this as a vector.

Write a script finding the x, y and z forces acting on your block if you drop it. Use arrays.