MATH 2
PROBLEM OF THE WEEK 9
Due Friday, March 7.

Please show all your work!

Name:————————————————————————

The front of your book has a formula for the volume of a frustum of a right circular cone (a frustum is a cone chopped off at a height h above the base). Prove the formula

$$\text{Volume} = \frac{1}{3}\pi(r^2 + rR + R^2)h$$

with calculus. Proving a formula means that you can't just plug in numbers and see that it works. You've got to do it in general, with variables.