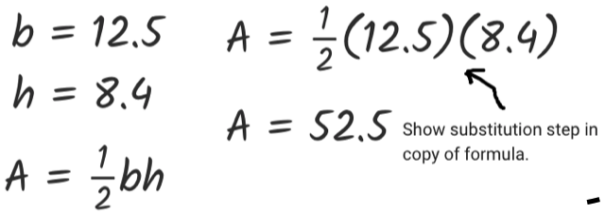
6.13 Density applications

1. Do Now: Find the area of a triangle with base $b = 12.5$ and height $h = 8.4$. Use the Graspable Math activity linked above. Paste a cropped screenshot of the first problem here. It should look like the modelled solution below.

   - ☐ Copy expressions (drag the handle on the left of the formula)
   - ☐ Substitute values (drag the variable onto the formula)
   - ☐ Show/hide steps (show the substitution, final line, and key steps)
   - ☐ Copy/paste screenshot: command-control-shift-4 (Mac)



2. Find the area of a semi-circle with radius $r = 7.5$. Paste a cropped screenshot of the Graspable Math. Compare your format to the model solution.

3. $A_{semi-circle} = \frac{1}{2}\pi r^2$

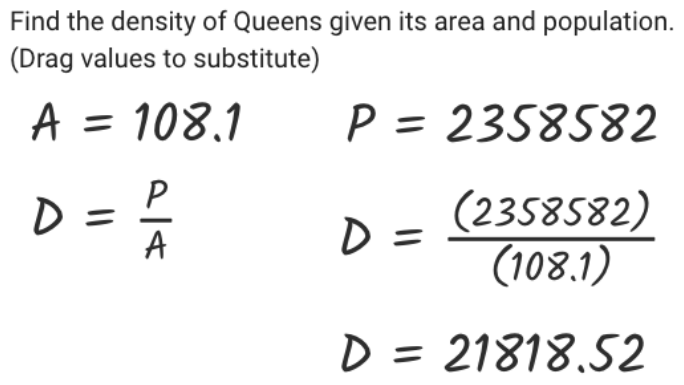
$r = 7.5$

$\pi = 3.14$

$A_{semi-circle} = \frac{1}{2}(3.14)(7.5)^2$

$A_{semi-circle} = 88.313$

4. Find the population density of Queens, New York. Paste a cropped screenshot of the Graspable Math. Make a copy of the formula and show the substitution step.



5. A building wall must be painted. Each gallon of paint covers 250 square feet and costs \$25. If the wall measures 100 feet wide by 50 feet tall, how much will the paint cost?