

## Multiplying Fractions: Area Model

1. On grid chart paper, using a ruler, draw a rectangle that measures 4 **columns** across and 7 **rows** down. Mark the dimensions of the rectangle and then find the area.

$$\text{AREA} = 4 \times 7 = \underline{\hspace{2cm}}$$

2. Draw a rectangle that measures 6 units by 2.5 units. Mark the dimensions and find the area.

$$\text{AREA} = 6 \times 2.5 = \underline{\hspace{2cm}}$$

3. Draw a rectangle that measures  $\frac{1}{2}$  by  $\frac{3}{4}$  units. Mark the dimensions and find the area.

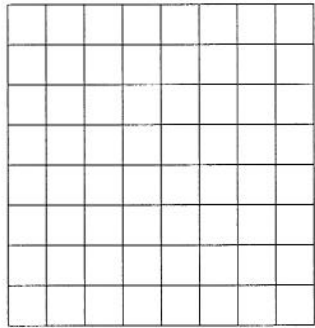
$$\text{AREA} = \frac{1}{2} \times \frac{3}{4} = \underline{\hspace{2cm}}$$

**CONCLUSION:** We can find area of a rectangle by counting the \_\_\_\_\_ inside the \_\_\_\_\_, or by \_\_\_\_\_ the two dimensions together. Area is a measurement in \_\_\_\_\_ dimensions, so the units will always be \_\_\_\_\_ units.

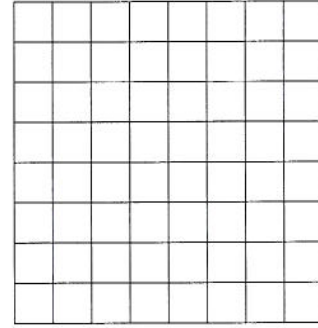
*Rectangle #3 is very small. Switch to graph paper and practice fraction multiplication by drawing an appropriate "WHOLE" rectangle in a bigger size.*

4. Draw a "WHOLE" rectangle that will work for the following problems. Measure off the fraction dimensions for each problem and draw a "rug". Count the boxes or multiply the rows and columns in the "rug" to find the area or solution to the multiplication problem.

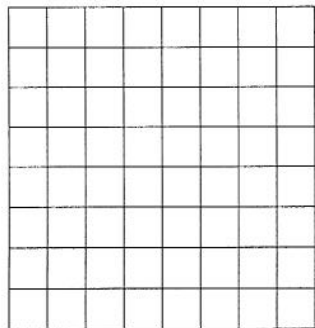
a)  $\frac{3}{4} \times \frac{2}{5} =$



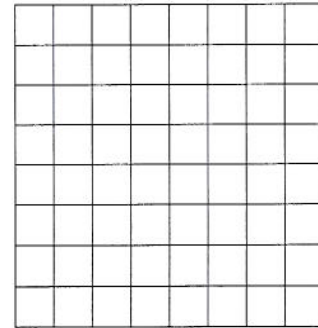
b)  $\frac{2}{3} \times \frac{3}{5} =$



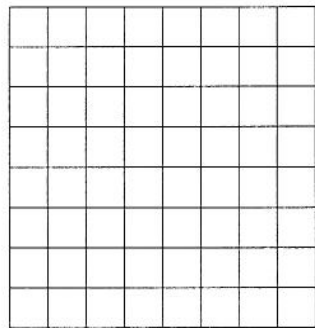
c)  $\frac{4}{5} \times \frac{1}{3} =$



d)  $\frac{1}{3} \times \frac{5}{4} =$



e)  $\frac{5}{6} \times \frac{5}{6} =$



f)  $\frac{6}{7} \times \frac{7}{6} =$

