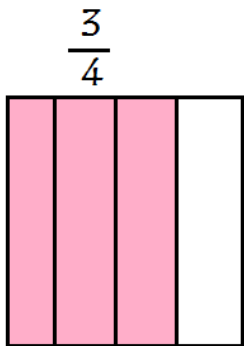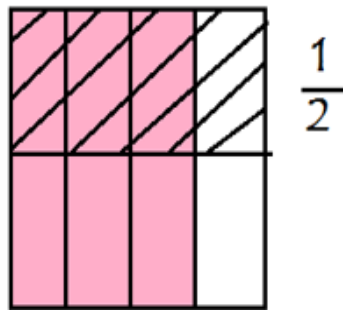# Step by Step: Multiplying Fractions by Fractions using the Area Model

$$\frac{3}{4} \times \frac{1}{2} =$$
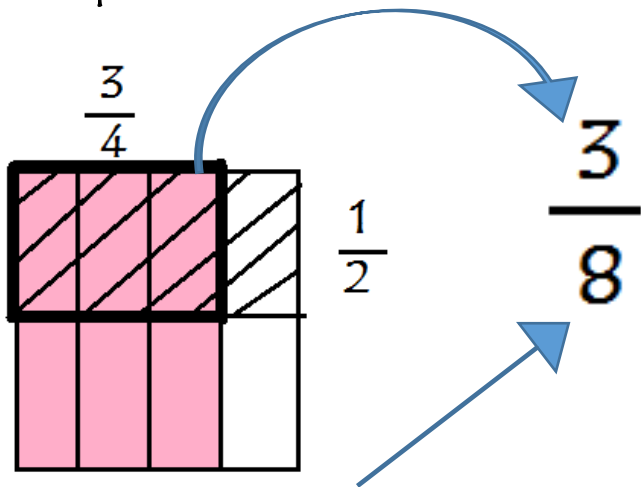
Step 1: Divide the shape into 4 equal parts and shade 3

$$\frac{3}{4}$$

Step 2: Divide the shape into 2 equal parts and shade 1

$$\frac{1}{2}$$

Step 3: Count the area that is double shaded. This is the numerator and the denominator will be the total parts of the shape.

$$\frac{3}{4}$$

$$\frac{1}{2}$$

$$\frac{3}{8}$$

Total number of equal parts is 8

Step 4: Check

Remember: Multiply straight across

$$\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$$

Perfect! The model and check are the same.