Model Multiplication

Find $\frac{5}{6} \times \frac{2}{3}$.

**Step 1:** Draw a square on grid paper. Draw horizontal lines to divide the square into sixths. Shade $\frac{5}{6}$ of the square.

**Step 2:** Draw vertical lines to divide the square into thirds. Use a different color to shade $\frac{2}{3}$ of the square.

**Step 3:** Write a fraction that describes the portion of the square that is shaded twice. 10 out of 18 sections are shaded twice. $\frac{10}{18}$ of the square is shaded twice.

$\frac{5}{6} \times \frac{2}{3} = \frac{10}{18}$

1. Use area to model multiplication of $\frac{3}{5}$ and $\frac{1}{2}$. Draw a square. Use horizontal lines to separate the square into fifths. Use vertical lines to separate the square into halves.
   
   a. What fraction of the square does each rectangle represent? ____________
   
   b. Shade and label $\frac{3}{5} \times \frac{1}{2}$. ____________
   
   c. Write your answer in simplest form. $\frac{3}{5} \times \frac{1}{2} = \frac{3}{10}$

Complete the equation represented by each model. Write each answer in simplest form.

2. ____________

3. ____________

4. ____________

Use models to find each product. Write each answer in simplest form.

5. $\frac{1}{6} \times \frac{4}{5}$  

6. $\frac{2}{3} \times 9$

7. $\frac{1}{2} \times \frac{3}{8}$

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