Multiplying Fractions

Lesson 5-9

DATE TIME

SRB 197–198, 202–203

1. In your own words, describe the method for multiplying fractions discovered in class.

Sample answer: To multiply two fractions, multiply the numerators and write that as the numerator of your answer. Then multiply the denominators and write that as the denominator of your answer.

Use the fraction multiplication algorithm described above to solve Problems 2–7.

2. $\frac{1}{2} * \frac{3}{6} =$ $\frac{3}{12}$

3. $\frac{2}{3} * \frac{1}{4} =$ $\frac{2}{12}$

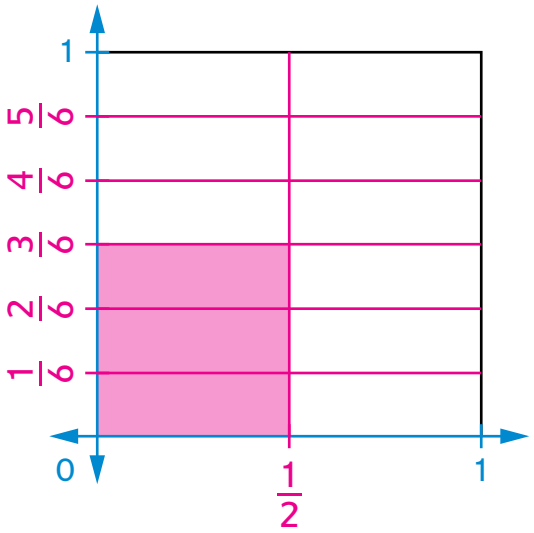
4. $\frac{3}{5} * \frac{1}{6} =$ $\frac{3}{30}$

5. $\frac{3}{4} * \frac{3}{8} =$ $\frac{9}{32}$

6. $\frac{2}{5} * \frac{4}{10} =$ $\frac{8}{50}$

7. $\frac{7}{9} * \frac{2}{12} =$ $\frac{14}{108}$

8. Choose one of the problems above. Draw an area model for the problem. Explain how it shows that your answer is correct. Sample answer: For Problem 2, I divided the square into 2 columns and 6 rows. Then I shaded a rectangle $\frac{1}{2}$ unit by $\frac{3}{6}$ unit. The area model has 3 of the 12 parts shaded. So the area is $\frac{3}{12}$.



For Problems 9 and 10, write a number model. Then solve.

9. Sheila had $\frac{3}{4}$ pound of blueberries. She used $\frac{1}{3}$ of them in a fruit salad. How many pounds of blueberries did she use?

Number model: $\frac{1}{3} * \frac{3}{4} = r$

Answer: $\frac{3}{12}$ pound

10. The mirror in a dollhouse is $\frac{2}{4}$-inch wide and $\frac{3}{4}$-inch tall. What is the area of the mirror in square inches?

Number model: $\frac{2}{4} * \frac{3}{4} = a$

Answer: $\frac{6}{16}$ square inch

11. Ben tried to solve Problem 9 and got the answer $\frac{4}{7}$. He said, "That can't be right because $\frac{1}{3}$ is less than $\frac{4}{7}$." Do you agree with Ben? Explain. Sample answer: I agree. When you multiply two fractions less than 1, the product should be less than both factors. $\frac{4}{7}$ is not less than $\frac{1}{3}$.