

Unit 5 Assessment

- ① Find a common denominator for the pairs of fractions given.
Rewrite the fractions as equivalent fractions with a common denominator.

a. $\frac{5}{6}$ and $\frac{1}{2}$ _____

b. $\frac{3}{8}$ and $\frac{2}{5}$ _____

- ② Describe the strategy you used to find a common denominator for $\frac{3}{8}$ and $\frac{2}{5}$ in Problem 1b.

- ③ Use the equivalent fractions you wrote in Problem 1 to help you solve.

a. $\frac{5}{6} - \frac{1}{2} =$ _____

b. $\frac{3}{8} + \frac{2}{5} =$ _____

Estimate. Then solve. Show your work.

Use your estimate to check whether your answer makes sense.

④ $9\frac{2}{3} + 4\frac{1}{5} = ?$ Estimate: _____

$9\frac{2}{3} + 4\frac{1}{5} =$ _____

⑤ $3\frac{3}{4} - 1\frac{2}{5} = ?$ Estimate: _____

$3\frac{3}{4} - 1\frac{2}{5} =$ _____



Unit 5 Assessment (continued)

- ⑥ Jenny walked $2\frac{3}{8}$ miles on Monday and $1\frac{7}{8}$ miles on Tuesday.
How many miles did she walk on Monday and Tuesday all together?

_____ (number model)

_____ (estimate)

Jenny walked _____ miles.

- ⑦ a. What is $\frac{1}{5}$ of 45? _____
 b. What is $\frac{3}{5}$ of 45? _____
 c. Explain how you can use your answer to Part a to help you solve Part b.

Solve.

⑧ $20 * \frac{3}{10} =$ _____

⑨ $12 * \frac{5}{6} =$ _____

⑩ Look at the problem $15 * \frac{3}{5}$.

- a. Will the product be greater than 15? _____

How do you know? _____

- b. Will the product be greater than $\frac{3}{5}$? _____

How do you know? _____

c. Solve. $15 * \frac{3}{5} =$ _____



Unit 5 Assessment (continued)

- 11 Fold a piece of paper to help you solve the problem $\frac{2}{3}$ of $\frac{3}{4}$. Then draw lines and shade the rectangle at the right to show what you did.

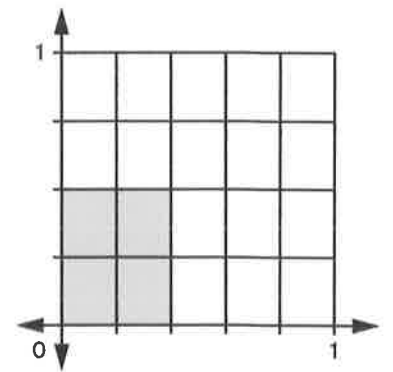
$\frac{2}{3}$ of $\frac{3}{4}$ is _____.



- 12 Write a number story that matches the expression $\frac{5}{6} * 12$. Then solve the number story.

Solution: _____

- 13 a. What are the dimensions of the shaded rectangle in the area model at the right?
 _____ unit by _____ unit
- b. What is the area of the shaded rectangle?
 _____ square unit
- c. Write a multiplication number sentence that matches the area model.



Unit 5 Assessment (continued)

Use the fraction multiplication algorithm to solve.

⑭ $\frac{3}{5} * \frac{4}{10} =$ _____

⑮ $\frac{2}{3} * \frac{4}{9} =$ _____

For each problem below, write a division number model with a letter for the unknown. Then draw a picture to solve the problem.

Write a multiplication number sentence to show how you checked your answer.

- ⑯ Wallace has $\frac{1}{2}$ gallon of milk. He wants to pour it into 4 smaller containers, putting the same amount in each container. How much milk should he put in each container?

Division number model: _____

Wallace should pour _____ gallon of milk into each container.

Check: _____

- ⑰ Ms. Reynolds has 5 pounds of clay for her art club. If she divides the clay into $\frac{1}{3}$ -pound pieces, how many pieces will she have?

Division number model: _____

Ms. Reynolds will have _____ pieces.

Check: _____

Unit 5 Challenge

- ① a. Find a common denominator for the following 4 fractions.

$$\frac{5}{12} \quad \frac{1}{3} \quad \frac{5}{6} \quad \frac{21}{24} \quad \text{Common denominator: } \underline{\hspace{2cm}}$$

- b. Rewrite the fractions as equivalent fractions with a common denominator.

$$\frac{5}{12} = \underline{\hspace{2cm}} \quad \frac{1}{3} = \underline{\hspace{2cm}} \quad \frac{5}{6} = \underline{\hspace{2cm}} \quad \frac{21}{24} = \underline{\hspace{2cm}}$$

- c. Find the sum of all 5 fractions.

$$\frac{5}{12} + \frac{1}{3} + \frac{5}{6} + \frac{21}{24} = \underline{\hspace{2cm}}$$

- ② When Marla measured her ponytail in January, it was $5\frac{3}{8}$ inches long. She measured it again in August and found it had grown $3\frac{3}{4}$ inches. Just after she measured it in August, Marla got a haircut. The stylist cut off $2\frac{1}{2}$ inches of the ponytail. How long was Marla's ponytail after her haircut?

Number model: _____

Estimate: _____

Marla's ponytail was _____ inches long after her haircut.

- ③ Amber and Jorge were talking about how to solve the problem $\frac{5}{6}$ of 40. Amber said, "I can solve this by finding $\frac{1}{6}$ of 40 and multiplying the answer by 5." Jorge said, "I can solve this by finding $\frac{1}{6}$ of 40 and subtracting the answer from 40." Will both strategies result in the correct answer? Explain why or why not.

**Unit 5 Challenge** (continued)

- ④ What is $\frac{1}{2}$ of $\frac{2}{3}$ of $\frac{3}{4}$ of 1? _____

Explain how you found your answer.

- ⑤ Angela used the multiplication rule to find a fraction equivalent to $\frac{5}{6}$. Her work is shown below.

$$\frac{5 * 100}{6 * 100} = \frac{500}{600}$$

- a. Explain how Angela knows that $\frac{500}{600}$ is equivalent to $\frac{5}{6}$.

- b. Would Angela have gotten an equivalent fraction if she multiplied $\frac{5}{6}$ by $\frac{250}{250}$? Why or why not?
