

Key

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**Unit 4: End-of-Unit PRACTICE Assessment** (Calculators may not be used.)

1. Maddie biked  $8\frac{3}{4}$  miles today, and Chase biked  $3\frac{1}{2}$  miles. How many times the length of Chase's bike ride was Maddie's bike ride?

a.  $\frac{2}{5}$  times as far

b.  $\frac{3}{2}$  times as far

c.  $\frac{5}{2}$  times as far

d.  $\frac{28}{70}$  times as far

$n. 3\frac{1}{2} = 8\frac{3}{4}$

$8\frac{3}{4} \div 3\frac{1}{2}$

$\frac{35}{4} \div \frac{7}{2} = \frac{35}{4} \cdot \frac{2}{7} = \frac{5}{2}$

2. Select **all** equations that represent this question:

Tommy is stacking donuts to build "Tommy's Famous Tower of Donuts!" He takes a break (possibly to eat donuts, but possibly just to step back and admire his work) when the tower is 5 feet tall, which is  $\frac{2}{3}$  of the height of the tower he wants to build. How tall is the tower when finished? (Hint: There are 3.)

a.  $\frac{2}{3} \div 5 = ?$

e.  $5 \cdot \frac{3}{2} = ?$

b.  $\frac{2}{3} \cdot ? = 5$

f.  $5 \cdot \frac{2}{3} = ?$

c.  $5 \cdot ? = \frac{2}{3}$

d.  $5 \div \frac{2}{3} = ?$

3. Select **all** statements that show correct reasoning for finding  $13 \div \frac{4}{5}$ .

a. Multiply 13 by 5, then multiply by  $\frac{1}{4}$ .

b. Multiply 13 by 4, then divide by 5.

c. Multiply 13 by 5, then divide by 4.

d. Multiply 13 by  $\frac{1}{5}$ , then multiply by 4.

4. Divide.

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a.  $\frac{2}{3} \div \frac{1}{5}$

$\frac{2}{3} \cdot \frac{5}{1} = \frac{10}{3}$  or  $3\frac{1}{3}$

b.  $\frac{7}{2} \div \frac{3}{4}$

$\frac{7}{2} \cdot \frac{4}{3} = \frac{28}{6} = \frac{14}{3}$  or  $4\frac{2}{3}$

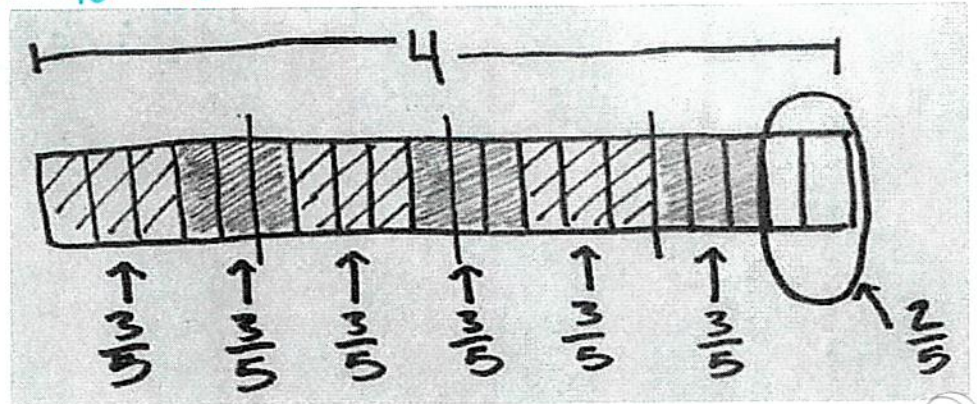
c.  $\frac{5}{9} \div \frac{10}{11}$

$\frac{5}{9} \cdot \frac{11}{10} = \frac{55}{90} = \frac{11}{18}$

d.  $4\frac{1}{3} \div \frac{3}{2}$

$\frac{13}{3} \div \frac{3}{2} = \frac{13}{3} \cdot \frac{2}{3} = \frac{26}{9}$  or  $2\frac{8}{9}$

5. Allison and Louise are looking at this tape diagram and they see different answers. They both agree that the problem is  $4 \div \frac{3}{5}$  but they disagree about what it means.



Allison says that the diagram shows  $4 \div \frac{3}{5} = 6\frac{2}{5}$ .

Louise says that the diagram shows  $4 \div \frac{3}{5} = 6\frac{2}{3}$ .

Sr. Plaut LOVES a math fight because people are arguing about ideas and have to explain their thinking. Aaaaahhhh. Bliss. Who is correct, and **why**?

Louise because there are 2 pieces left out of 3 need for a group or  $\frac{2}{3}$  of a group.

6. How many  $\frac{1}{2}$  inch cubes does it take to fill a box with width 4 inches, length  $2\frac{1}{2}$  inches, and height  $1\frac{1}{2}$  inches? If it helps, then draw the box.

$4 \times 2 = 8$

$2\frac{1}{2} \times 2 = 5$

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

$8 \times 5 \times 3$

$40 \times 3 = 120$  cubes

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7. Anna makes some art in the shape of a rectangle. The area of the rectangle is  $13\frac{3}{4}$  square inches. Its width is  $2\frac{1}{2}$  inches. What is the length of the rectangle? Show or explain your reasoning. **Please include the correct unit in your answer.**

$$13\frac{3}{4} \div 2\frac{1}{2}$$

$$\frac{55}{4} \div \frac{5}{2} = \frac{55}{4} \cdot \frac{2}{5} = \frac{11}{2} \text{ or } 5\frac{1}{2} \text{ in}$$

8. Drew has a very small gift box that he is fills with beach glass. The box has a length of  $\frac{5}{3}$  inches, a width of  $\frac{9}{5}$  inches, and a height is  $\frac{3}{2}$  inches. What is the volume of the box? **Please include the correct unit in your answer.**

$$\frac{5}{3} \cdot \frac{9}{5} \cdot \frac{3}{2}$$

$$\frac{9}{3} \cdot \frac{3}{2} = \frac{9}{2} \text{ or } 4\frac{1}{2} \text{ in}^3$$