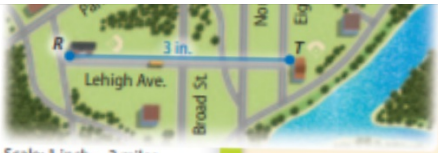
Nov. 9,2018
Periods 1,2,4,6

Warm Up- Proportions and Scale Side One, #s 1-4

Class Work -
Go over pgs. 181-182 together
Video - SCALE
Proportion Review Packet
(notes, foldable, practice)

Homework- finish filling in foldable and complete Scale Practice.

$\frac{2 \text{ miles}}{1 \text{ inch}} = \frac{\square \text{ miles}}{3 \text{ inches}}$ Write the scale as a unit rate.



Scale: 1 inch = 2 miles

STEP 2 Write an equivalent rate to find the missing number.

$\frac{2 \text{ miles} \times 3}{1 \text{ inch} \times 3} = \frac{6 \text{ miles}}{3 \text{ inches}}$

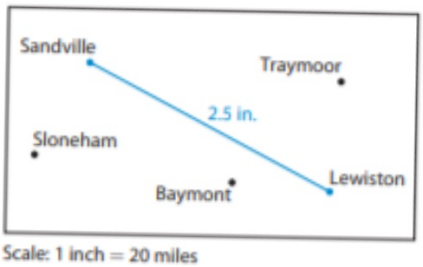
So, in Step 1, the missing number is 6.

The actual distance between the two schools is 6 miles.

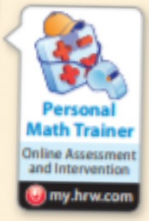
YOUR TURN

3. The distance between Sandville and Lewiston is shown on the map. What is the actual distance between the towns?

50 miles



Scale: 1 inch = 20 miles



Guided Practice

Find the unknown value in each proportion. (Example 1)

1. $\frac{3}{5} = \frac{\square}{30}$

$\frac{3 \times \boxed{6}}{5 \times \boxed{6}} = \frac{\boxed{18}}{30}$

2. $\frac{4}{10} = \frac{\square}{5}$

$\frac{4 \div \boxed{2}}{10 \div \boxed{2}} = \frac{\boxed{2}}{5}$

Solve using equivalent ratios. (Example 1)

3. Leila and Jo are two of the partners in a business. Leila makes $3 in profits for every $4 that Jo makes. If Jo makes $60 profit on the first item they sell, how much profit does Leila make? $45

4. Hendrick wants to enlarge a photo that is 4 inches wide and 6 inches tall. The enlarged photo keeps the same ratio. How tall is the enlarged photo if it is 12 inches wide? 18 inches tall

Solve using unit rates. (Example 2)

5. A person on a moving sidewalk travels 21 feet in 7 seconds. The moving sidewalk has a length of 180 feet. How long will it take to move from one end of the sidewalk to the other?

60 seconds

6. In a repeating musical pattern, there are 56 beats in 7 measures. How many measures are there in 104 beats?

13 measures

7. Contestants in a dance-a-thon rest for the same amount of time every hour. A couple rests for 25 minutes in 5 hours. How long did they rest in 8 hours?

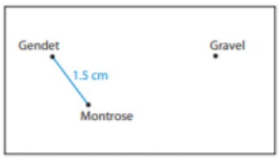
40 minutes

8. Frances gets 6 paychecks in 12 weeks. How many paychecks does she get in 52 weeks?

26 paychecks

9. What is the actual distance between Gendet and Montrose? (Example 3)

24 kilometers



Scale: 1 centimeter = 16 kilometers

ESSENTIAL QUESTION CHECK-IN

10. How do you solve problems with proportions?

Sample answer: Write a proportion that includes one unknown quantity. Find equivalent ratios or rates to find the unknown quantity.

Foldable Notes:

What Do You Need to Find?

Paloma walked 0.75 miles in 15 minutes. If she continues walking at this the same pace, how long will it take her to walk 3 miles?

Missing info: time to walk three miles

What Do You Know?

Paloma walked 0.75 miles in 15 minutes. If she continues walking at the same pace, how long will it take her to walk 3 miles?

Know: Comparing miles to minutes 0.75 miles in 15 minutes.

Set Up A Proportion

$$\frac{\text{Miles}}{\text{Minutes}} = \frac{0.75 \text{ Miles}}{15 \text{ minutes}} = \frac{3 \text{ Miles}}{X \text{ Minutes}}$$

Solve the Proportional

0.75 Miles = 3 Miles
15 Minutes X Minutes

15 * 3 / 0.75 = X Minutes
45 / 0.75 = X Minutes
60 = X Minutes

60 Minutes to walk 3 miles

Check You Answer

0.75 Miles = 3 Miles
15 minutes = 60 Minutes
15 * 3 = 60 * 0.75
45 = 45
CORRECT!

Nov. 9, 2018
Period 5
Warm Up - Video Dividing Mixed Numbers

$39\frac{2}{3} \div 4\frac{1}{4}$

$$\begin{array}{r} 2 \\ 39 \\ \times\ 3 \\ \hline 117 \end{array}$$

ADDITIONAL EXAMPLE 2

The area of a rectangular herb garden is $39\frac{2}{3}$ square feet. The width of the herb garden is $4\frac{1}{4}$ feet. What is the length?

Class Work- Check yesterday's work and homework together.
Pgs. 95 #,
Pg. 96 #s 15-17, and # 19

Homework- worksheet "Multiplying Fractions with OF"

salad into containers, each of which holds $1\frac{1}{4}$ pounds. How many containers does she need? Explain.

9; $10\frac{1}{2} \div 1\frac{1}{4} = 8\frac{2}{5}$; She will need 9 containers.

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Solving Problems Involving Area

Recall that to find the area of a rectangle, you multiply length × width. If you know the area and only one dimension, you can divide the area by the known dimension to find the other dimension.

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EXAMPLE 2 Real World

FL 6.NS.1.1

The area of a rectangular sandbox is $56\frac{2}{3}$ square feet. The length of the sandbox is $8\frac{1}{2}$ feet. What is the width?

$A = L \cdot W$

$L = A \div W$

STEP 1 Write the situation as a division problem.

$56\frac{2}{3} \div 8\frac{1}{2}$

STEP 2 Rewrite the mixed numbers as fractions greater than 1.

$56\frac{2}{3} \div 8\frac{1}{2} = \frac{170}{3} \div \frac{17}{2}$

STEP 3 Rewrite the problem as multiplication using the reciprocal of the divisor.

$\frac{170}{3} \div \frac{17}{2} = \frac{170}{3} \times \frac{2}{17}$

$= \frac{\cancel{170}^{10} \times 2}{3 \times \cancel{17}_{1}}$ Multiply numerators. Multiply denominators.

$= \frac{20}{3}$, or $6\frac{2}{3}$ Simplify and write as a mixed number.

The width of the sandbox is $6\frac{2}{3}$ feet.

Math Talk
Mathematical Practices
Explain how to find the length of a rectangle when you know the area and the width.

Divide the area by the width to find the length.

Reflect

7. **Check for Reasonableness** How can you determine if your answer is reasonable?

Sample answer: Use compatible numbers to estimate. Round the area to 56 square feet and the length to 8 feet. $56 \div 8 = 7$. Since $6\frac{2}{3}$ is close to 7, the answer is reasonable.

Your Turn

9. The area of a rectangular rug is $4\frac{1}{12}$ square yards. The length of the rug is $4\frac{1}{3}$ yards. What is the width? _____

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Guided Practice

Selected Answers
See all the selected answers.

Guided Practice

Divide. Write each answer in simplest form. (Explore Activity and Example 1)

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

$\frac{\square}{4} \div \frac{3}{4} =$

$\frac{\square}{4} \times \frac{\square}{\square} =$

_____

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

$\frac{\square}{2} \div \frac{\square}{4} =$

$\frac{\square}{2} \times \frac{\square}{\square} =$

_____

3. $4 \div 1\frac{1}{8} =$ _____

4. $3\frac{1}{5} \div 1\frac{1}{7} =$ _____

5. $3\frac{1}{3} \div 2\frac{1}{2} =$ _____

6. $15\frac{1}{3} \div 3\frac{5}{6} =$ _____

Write each situation as a division problem. Then solve. (Example 2)

7. A sandbox has an area of 26 square feet, and the length is $5\frac{1}{2}$ feet. What is the width of the sandbox? _____

8. Mr. Webster is buying carpet for an exercise room in his basement. The room will have an area of 230 square feet. The width of the room is $12\frac{1}{2}$ feet. What is the length? _____

on a separate sheet

ESSENTIAL QUESTION CHECK-IN

9. How does dividing mixed numbers compare with dividing fractions?

_____

_____

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YOUR TURN

8. The area of a rectangular patio is $12\frac{3}{8}$ square meters. The width of the patio is $2\frac{3}{4}$ meters. What is the length? $4\frac{1}{2}$ meters

9. The area of a rectangular rug is $14\frac{1}{12}$ square yards. The length of the rug is $4\frac{1}{3}$ yards. What is the width? $3\frac{1}{4}$ yards

Guided Practice

Divide. Write each answer in simplest form. (Explore Activity and Example 1)

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

$\frac{17}{4} \div \frac{3}{4} =$

$\frac{17}{4} \times \frac{4}{3} =$

$5\frac{2}{3}$

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

$\frac{3}{2} \div \frac{9}{4} =$

$\frac{3}{2} \times \frac{4}{9} =$

$\frac{2}{3}$

3. $4 \div 1\frac{1}{8} =$ $3\frac{5}{9}$

4. $3\frac{1}{5} \div 1\frac{1}{7} =$ $2\frac{4}{5}$

5. $8\frac{1}{3} \div 2\frac{1}{2} =$ $3\frac{1}{3}$

6. $15\frac{1}{3} \div 3\frac{5}{6} =$ 4

Write each situation as a division problem. Then solve. (Example 2)

7. A sandbox has an area of 26 square feet, and the length is $5\frac{1}{2}$ feet. What is the width of the sandbox? $26 \div 5\frac{1}{2}$; The width is $4\frac{8}{11}$ feet.

8. Mr. Webster is buying carpet for an exercise room in his basement. The room will have an area of 230 square feet. The width of the room is $12\frac{1}{2}$ feet. What is the length? $230 \div 12\frac{1}{2}$; $18\frac{2}{5}$ feet

ESSENTIAL QUESTION CHECK-IN

9. How does dividing mixed numbers compare with dividing fractions?
The process is the same except that you must first change the mixed numbers to fractions.

Name _____ Class _____ Date _____

4.3 Independent Practice

FL 6.NS.1.1

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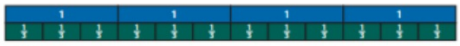
10. Jeremy has $4\frac{1}{2}$ cups of iced tea. He wants to divide the tea into $\frac{3}{4}$-cup servings. Use the model to find the number of servings he can make.

6 servings

11. A ribbon is $3\frac{2}{3}$ yards long. Mae needs to cut the ribbon into pieces that are $\frac{2}{3}$ yard long. Use the model to find the number of pieces she can cut.



$5\frac{1}{2}$ pieces

12. Dao has $2\frac{3}{8}$ pounds of hamburger meat. He is making $\frac{1}{4}$-pound hamburgers. Does Dao have enough meat to make 10 hamburgers? Explain.

no; He has only enough meat to make $9\frac{1}{2}$ quarter pound hamburgers.

13. **Multistep** Zoey made $5\frac{1}{2}$ cups of trail mix for a camping trip. She wants to divide the trail mix into $\frac{3}{4}$-cup servings.

a. Ten people are going on the camping trip. Can Zoey make enough $\frac{3}{4}$-cup servings so that each person on the trip has one serving?

No, it only makes $7\frac{1}{3}$ servings.

b. What size would the servings need to be for everyone to have a serving? Explain.

$\frac{11}{20}$ of a cup; $5\frac{1}{2}$ cups $\div$ 10 people $= \frac{11}{2} \times \frac{1}{10} = \frac{11}{20}$

c. If Zoey decides to use the $\frac{3}{4}$-cup servings, how much more trail mix will she need? Explain.

She would need $7\frac{1}{2}$ cups total, so she would need 2 more cups of trail mix.

Name _____ Class _____ Date _____

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4.3 Independent Practice

FL 6.NS.1.1

Personal Math Trainer — Online Assessment and Intervention. Independent Practice

Selected Answers — See all the selected answers.

10. Jeremy has $4\frac{1}{2}$ cups of iced tea. He wants to divide the teainto $\frac{3}{4}$ - cup servings. Use the model to find the number of servings he can make.

_____

11. A ribbon is $3\frac{2}{3}$ yards long. Mae needs to cut the ribbon into pieces that are $\frac{2}{3}$ yard long. Use the model to find the number of pieces she can cut.

_____

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_____

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a. Ten people aregoing on the camping trip. Can Zoey make enough $\frac{3}{4}$ - cup servingsso that each person on the trip has one serving?

_____

b. What size would the servings need to be for everyone to have a serving? Explain.

_____

c. If Zoey decides to use the $\frac{3}{4}$ - cup servings, how much more trail mix will she need? Explain.

_____

_____

14. The area of a rectangular picture frame is $30\frac{1}{3}$ square inches. The length of the frame is $6\frac{1}{2}$ inches. Find the width of the frame.

_____

$3\frac{1}{2} \div \frac{4}{5}$