

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4<sup>th</sup> Grade Unit 7 Review  
Multiplication of a Fraction by a Whole Number; Measurement

Solve the number stories using pictures or equations.

1. Maria has 6 cans of cranberry sauce in her cabinet. Each can weighs  $\frac{3}{4}$  of a pound. How many pounds of cranberry sauce does Maria have?

Equation with unknown:  $6 \times \frac{3}{4} = c$

Answer:  $4 \frac{2}{4}$  pounds       $\frac{18}{4} = 4 \frac{2}{4}$

2. Remy's cookie recipe calls for  $2 \frac{1}{4}$  cups of chocolate chips. If she wants to double the recipe, how many chocolate chips will she need?

Equation with unknown:  $2 \frac{1}{4} \times 2 = c$

Answer:  $4 \frac{2}{4}$  cups

3. Jacob skateboards  $\frac{7}{10}$  of a mile each day. How many miles does he skateboard in a week?

Equation with unknown:  $\frac{7}{10} \times 7 = s$

Answer:  $4 \frac{9}{10}$  miles       $\frac{49}{10} = 4 \frac{9}{10}$

4. a. List the next 4 multiples of  $\frac{1}{4}$  in order:

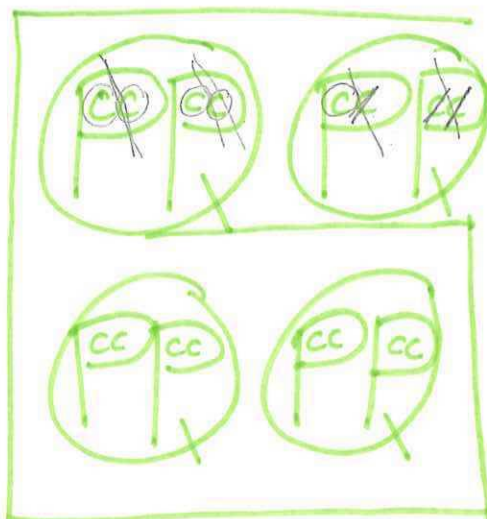
$\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$ ,  $\frac{4}{4}$ ,  $\frac{5}{4}$ ,  $\frac{6}{4}$

b.  $\frac{4}{3}$  is a multiple of the unit fraction  $\frac{1}{3}$ .

c.  $\frac{6}{4} = 6 *$   $\frac{1}{4}$

5. Convert.

1 gallon	<u>4</u> quarts
1 quart	<u>2</u> pints
3 quarts	<u>6</u> pints
1 pint	<u>2</u> cups
4 pints	<u>8</u> cups



6. Karen's smoothie recipe calls for 5 cups of orange juice. She had 4 pints of orange juice and she gave 3 cups away.

Does she have enough orange juice for her recipe? yes

How many cups of juice does she have? 5 cups

$$\begin{array}{r}
 2 \overline{) 216} \\
 \underline{- 200} \\
 16 \\
 \underline{- 16} \\
 0
 \end{array}$$

$100(2) = 200$

Solve the number story and show your work.

7. Michael needs to make chocolate chip cookies for the school fundraiser. Each bag of chocolate chips costs \$0.85. If he buys 4 or more bags, they cost only \$0.68 each. If Michael buys 6 bags of chocolate chips, how much will he spend?

$6 \times 0.68$

$$\begin{array}{r}
 60 + 8 \\
 6 \overline{) 360 \quad 48} \\
 \underline{360} \\
 48 \\
 \underline{48} \\
 0
 \end{array}$$

$6 \times \frac{68}{100} = \frac{408}{100}$

$4 \frac{8}{100}$

Michael will spend \$ 4.08 .

8. Maggie and Carly work as hostesses at two restaurants. At Tom's Tacos, they each work 8 hours per week. Together, they make \$160 each week at Tom's Tacos. At Pam's Pizzeria, they each work 9 hours per week. Together they earn \$216 each week at Pam's Pizzeria.

Which restaurant pays more per hour to each girl? How much more per hour?

a. Estimate: \_\_\_\_\_

Tom's Tacos  $\Rightarrow$

$160 \div 2 = \$80$

$80 \div 8 = \$10$

each girl sep.

per hour

~~Pam's Pizza~~  $216 \div 2 = 108$

$108 \div 9$

b. Pam's Pizzeria pays more per hour. It pays \$ 2 more per hour.

c. Equation(s) with unknown: \_\_\_\_\_

$$\left( \frac{216}{2} \div 9 \right) - \left( \frac{160}{2} \div 8 \right) = h$$

d. Look back at your estimate. Does your answer make sense?

$$\begin{array}{r}
 9 \overline{) 108} \\
 \underline{- 90} \\
 18 \\
 \underline{- 18} \\
 0
 \end{array}$$

$10(9) = 90$

12 per hour

Read the number story. Use the information to write an equation and solve the problem below.

9. Penny is making necklaces for her 4 cousins. Each necklace needs to be 2 feet long. Penny has 100 feet of string.

a. Will she have any leftover string? yes

b. If so, how much? 92 ft. (unit)

c. Equation:  $100 - (4 \times 2) = n$   
 $100 - 8 = 92$

10. If a math journal weighs  $\frac{1}{4}$  of a pound, what is the weight of 7 math journals?

$1\frac{3}{4}$  pounds

$$7 \times \frac{1}{4} = \frac{7}{4}$$

$$\begin{array}{r} + \\ 16 \\ \times \frac{3}{4} \\ \hline 48 \end{array}$$

16 oz = 1 pound

How many ounces is that? 28 ounces

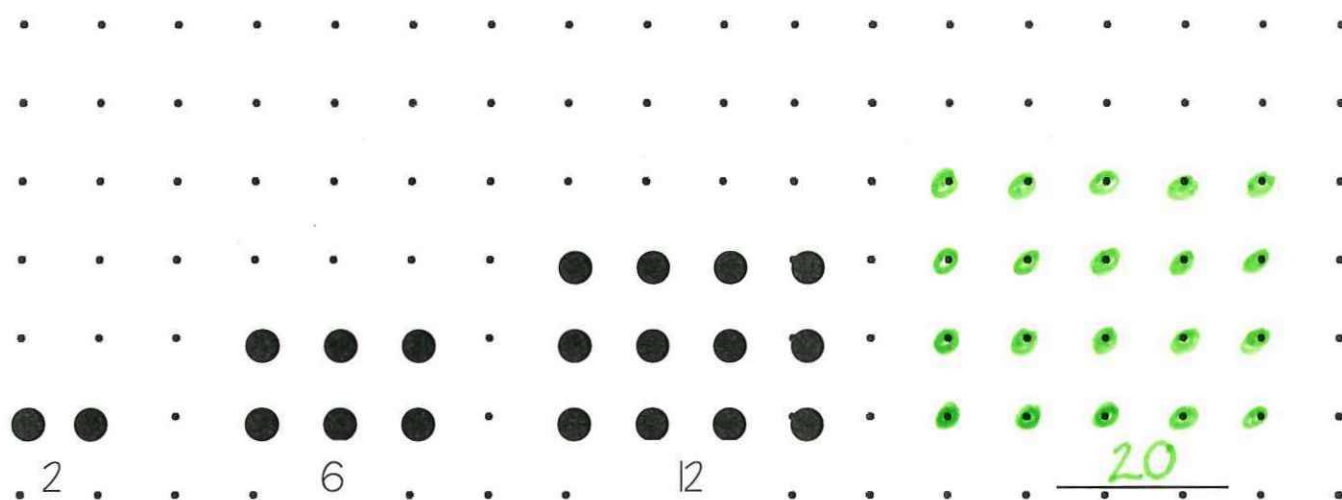
$$16 \times 1\frac{3}{4} = 16\frac{48}{4}$$

$$16 + 12 = 28$$

How do you know? I know that 16 oz = 1 pound.

I multiplied 16 times  $1\frac{3}{4}$  and got a product of  $16\frac{48}{4}$  which equals 28 ounces.

II. Draw the dot pattern that comes next and record the number of dots in the pattern.



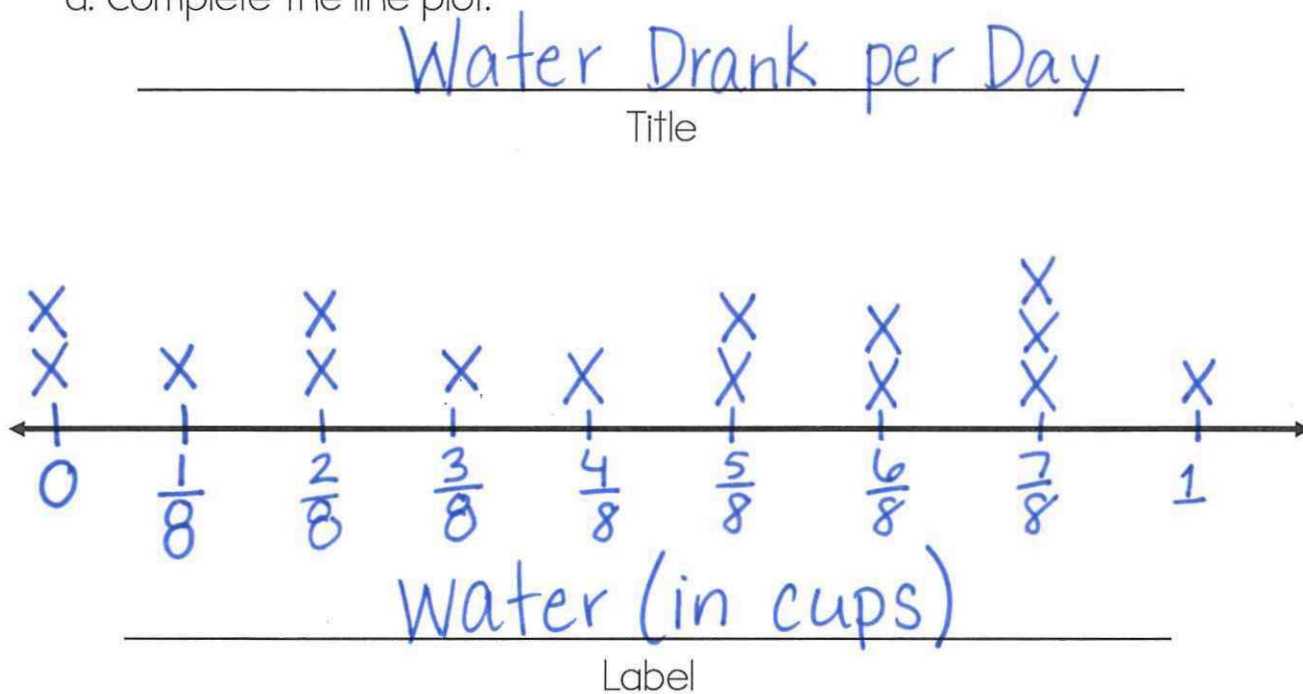
Write a description of the pattern. Each time <sup>one</sup> column  
and one row was added.

How do you know how many dots to add each time? Every time  
we added dots, they increased by an even  
number. For example: it increased by ~~4~~  
4, then 6, then 8.

12. For 5 days, the Jones family kept track of how much water each member drank at home. He measure to the nearest  $\frac{1}{8}$  cup. Here are their results:

~~$\frac{7}{8}$~~ ,  ~~$\frac{4}{8}$~~ , ~~0~~,  ~~$\frac{6}{8}$~~ ,  ~~$\frac{7}{8}$~~ , ~~1~~,  ~~$\frac{2}{8}$~~ , ~~0~~,  ~~$\frac{5}{8}$~~ ,  ~~$\frac{6}{8}$~~ ,  ~~$\frac{7}{8}$~~ ,  ~~$\frac{2}{8}$~~ ,  ~~$\frac{1}{8}$~~ ,  ~~$\frac{5}{8}$~~ ,  ~~$\frac{3}{8}$~~

a. Complete the line plot.



b. How many times did the family members drink  $\frac{7}{8}$  cup of water? 3

How much water is this all together?  $2\frac{5}{8}$  cup(s)  $3 \times \frac{7}{8} = \frac{21}{8} =$

c. What was the greatest amount of water someone drank in a day?

1 cup(s)

What amount of water per day was drank most often?  $\frac{7}{8}$  cup(s)

What is the difference between those amounts?  $\frac{1}{8}$  cup(s)  
 $1 - \frac{7}{8} = \frac{8}{8} - \frac{7}{8} = \frac{1}{8}$