

Name: Stew Dent

Date: 12/9/19

Division of Fractions Word Problems

Example: Sharon has  $3\frac{1}{3}$  pizzas left over and wants to share it with her 5 friends.  
What fraction will each person get?

What is being shared/split/divided?

Pizza  $(3\frac{1}{3})$

How many groups/people/parts is it being split into?

6 (sharon + 5 friends)

Write and solve an equation to represent the situation.

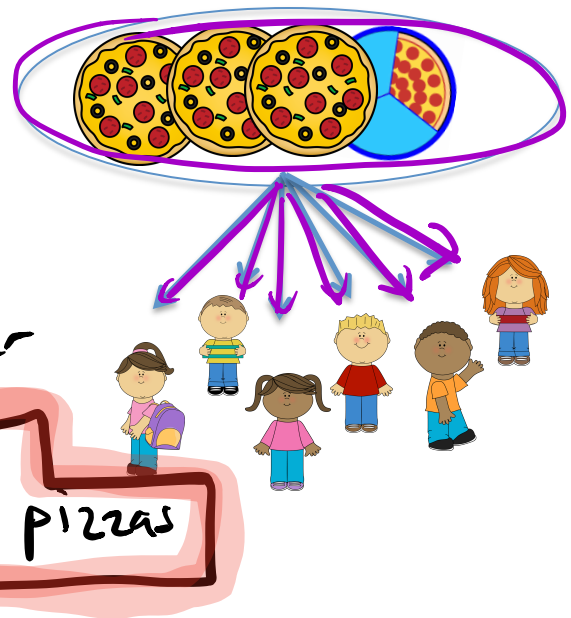
$$3\frac{1}{3} \div 6 = A \quad A = \text{answer}$$

Keep switch Flip

$$\frac{10}{3} \div \frac{6}{1} = 5 \frac{4}{3} \cdot \frac{1}{6} = \frac{10}{18} = \frac{5}{9}$$

**5/9 pizzas**

Draw a diagram.



Try These:

1) Barry has  $4\frac{3}{4}$  gallons of juice. He wants to fill bottles that hold  $1\frac{1}{4}$  gallons of juice. How many bottles can he fill?

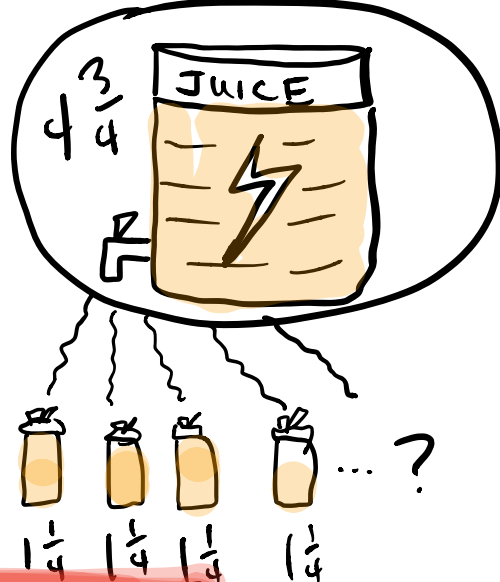
What is being shared/split/divided?

JUICE  $4\frac{3}{4}$  gal.

How many groups/people/parts is it being split into?

bottles of  $1\frac{1}{4}$  gal.

Draw a diagram.



Write and solve an equation to represent the situation.

$$4\frac{3}{4} \div 1\frac{1}{4} = B \quad B = \text{bottles}$$

$4\frac{3}{4} = \frac{19}{4}$ ,  $1\frac{1}{4} = \frac{5}{4}$

$$\frac{19}{4} \div \frac{5}{4} = \frac{19}{4} \cdot \frac{4}{5} = \frac{19}{5} = 3\frac{4}{5}$$

**3 4/5 bottles of juice**

2) Matt has  $5\frac{4}{5}$  kilograms of rice. Each serving is  $\frac{1}{8}$  of a kilogram. How many servings does he have?

What is being shared/split/divided?

$5\frac{4}{5}$  kg of RICE

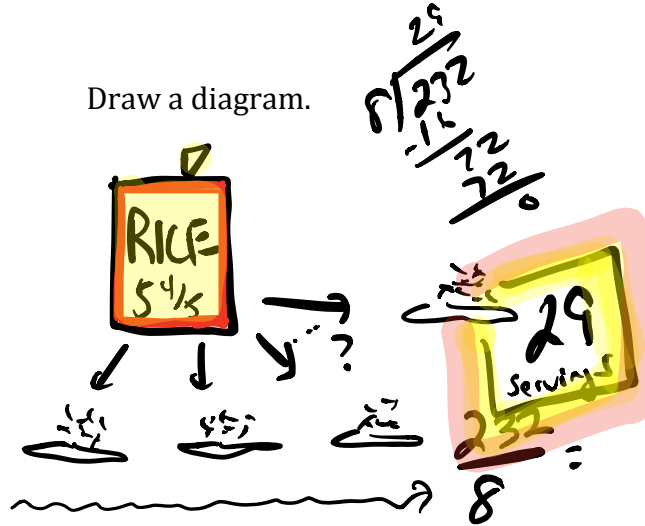
How many groups/people/parts is it being split into?

Servings of  $\frac{1}{8}$  each

Write and solve an equation to represent the situation.

$$5\frac{4}{5} \div \frac{1}{8} = \frac{29}{5} \div \frac{1}{8} = \frac{29}{5} \cdot \frac{8}{1} =$$

Draw a diagram.



3) Patty has  $7\frac{1}{2}$  yards of ribbon. Each dancer needs  $\frac{3}{4}$  of a yard of ribbon for her hair. How many dancers can receive a ribbon?

What is being shared/split/divided?

$7\frac{1}{2}$  yards of ribbon

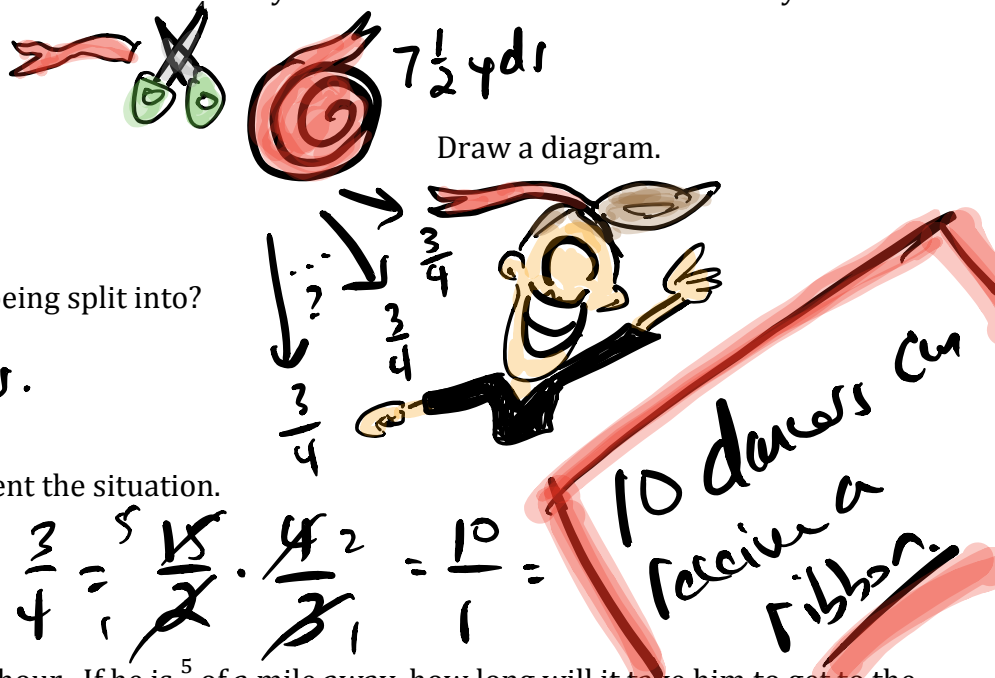
How many groups/people/parts is it being split into?

into  $\frac{3}{4}$  yard pieces.

Write and solve an equation to represent the situation.

$$7\frac{1}{2} \div \frac{3}{4} = \frac{15}{2} \div \frac{3}{4} = \frac{15}{2} \cdot \frac{4}{3} = \frac{10}{1} =$$

Draw a diagram.



4) A turtle can walk  $\frac{1}{12}$  of a mile in an hour. If he is  $\frac{5}{6}$  of a mile away, how long will it take him to get to the pond?

What is being shared/split/divided?

Total Distance  $\frac{5}{6}$  mi

How many groups/people/parts is it being split into?

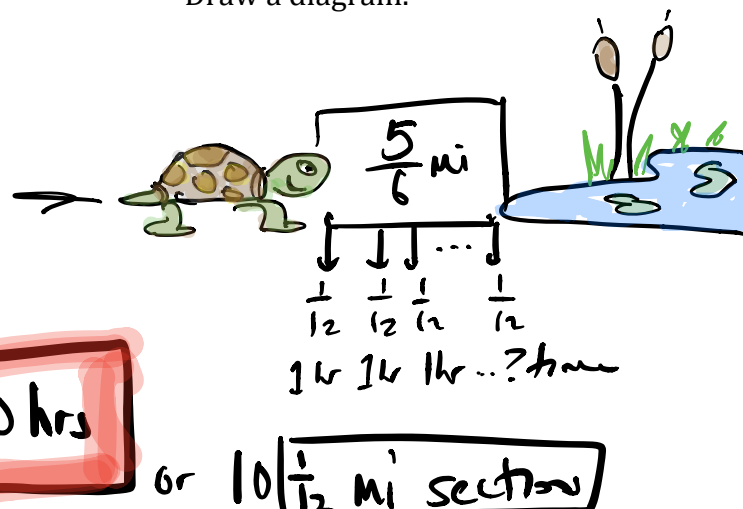
parts of  $\frac{1}{12}$  mi.

Write and solve an equation to represent the situation.

$$\frac{5}{6} \div \frac{1}{12} = \frac{5}{6} \cdot \frac{12}{1} = \frac{10}{1} = \boxed{10 \text{ hrs}}$$

or  $10 \frac{1}{12} \text{ mi sections}$

Draw a diagram.



5) A swimming pool is open for  $7\frac{1}{2}$  hours a day. The pool keeps one lifeguard on duty at a time, and each lifeguard's shift is  $1\frac{1}{2}$  hours long.

What is being shared/split/divided?

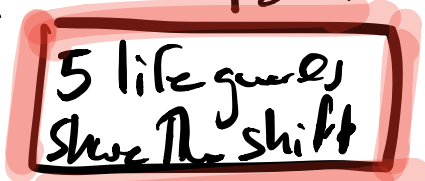
$7\frac{1}{2}$  shifts (hrs)

How many groups/people/parts is it being split into?

pieces of  $1\frac{1}{2}$  rotation

Write and solve an equation to represent the situation.

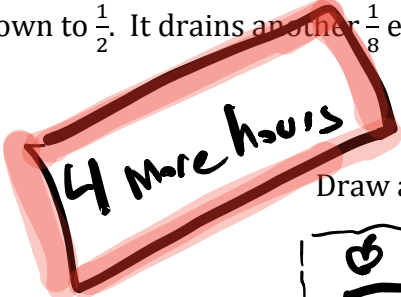
$$7\frac{1}{2} \div 1\frac{1}{2} = \frac{15}{2} \div \frac{3}{2} = \frac{15}{2} \cdot \frac{2}{3} = 5$$



6) Vera is using her phone. Its battery life is down to  $\frac{1}{2}$ . It drains another  $\frac{1}{8}$  every hour. How many hours will her battery last?

What is being shared/split/divided?

$\frac{1}{2}$  of battery power!

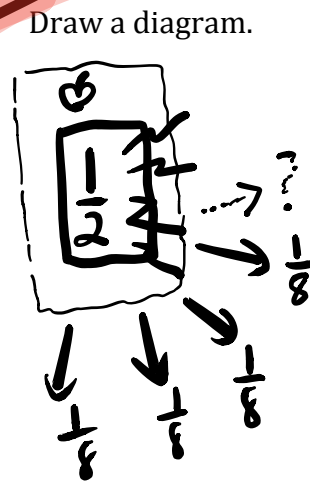


How many groups/people/parts is it being split into?

parts of  $\frac{1}{8}$  every hour

Write and solve an equation to represent the situation.

$$\frac{1}{2} \div \frac{1}{8} = \frac{1}{2} \cdot \frac{8}{1} = \frac{8}{2} = 4$$



7) Marcus is picking songs to play during a slideshow. The songs are each  $3\frac{1}{2}$  minutes long. The slideshow is  $31\frac{1}{2}$  minutes long. How many songs will play in the slideshow?

What is being shared/split/divided?

$31\frac{1}{2}$  minutes of time

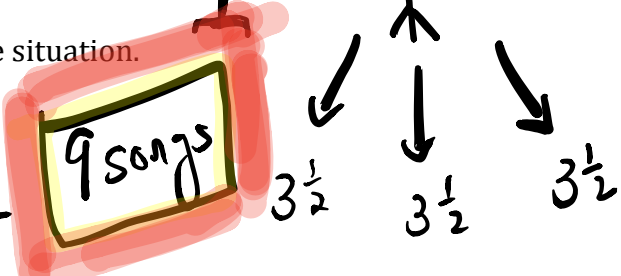


How many groups/people/parts is it being split into?

groups of  $3\frac{1}{2}$

Write and solve an equation to represent the situation.

$$31\frac{1}{2} \div 3\frac{1}{2} = \frac{63}{2} \div \frac{7}{2} = \frac{63}{2} \cdot \frac{2}{7} = 9$$



8) Carlos has  $\frac{1}{4}$  of a tank of fuel in his car. He uses  $\frac{1}{10}$  of a tank per day. How many days will his fuel last?

What is being shared/split/divided?

A tank of gas  $\frac{1}{4}$

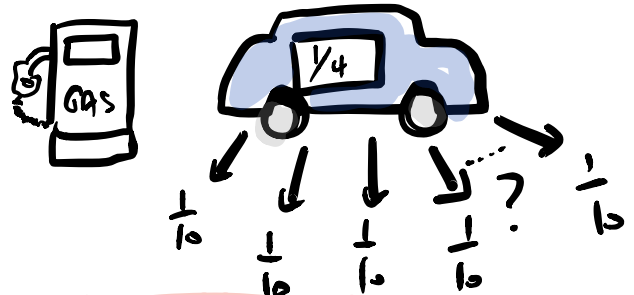
How many groups/people/parts is it being split into?

parts of  $\frac{1}{10}$  of gas

Write and solve an equation to represent the situation.

$$\frac{1}{4} \div \frac{1}{10} = \frac{1}{4} \cdot \frac{10}{1} = \frac{10}{4} \div 2 = \frac{5}{2} = 2\frac{1}{2} \text{ days}$$

Draw a diagram.



9) Erica can run  $\frac{1}{6}$  of a mile in a minute. Her school is  $\frac{2}{3}$  of a mile away from her home. At this speed, how long will it take her to get home?

What is being shared/split/divided?

$\frac{2}{3}$  of a mile: distance to school

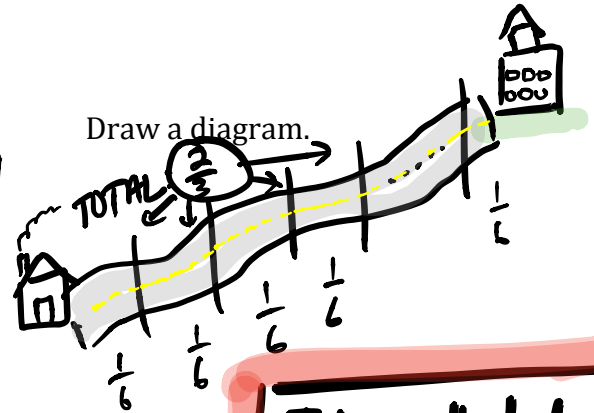
How many groups/people/parts is it being split into?

pieces of  $\frac{1}{6}$  mi. (1 min of run)

Write and solve an equation to represent the situation.

$$\frac{2}{3} \div \frac{1}{6} = \frac{2}{3} \cdot \frac{6}{1} = \frac{12}{3} \div 3 = 4$$

Draw a diagram.



It will take 4 minutes

10) Nicole is playing a video game where each round lasts  $\frac{3}{4}$  of an hour. She has scheduled  $3\frac{3}{4}$  of an hour to play. How many rounds can she play?

What is being shared/split/divided?

Total Time  $3\frac{3}{4}$

How many groups/people/parts is it being split into?

groups of  $\frac{3}{4}$

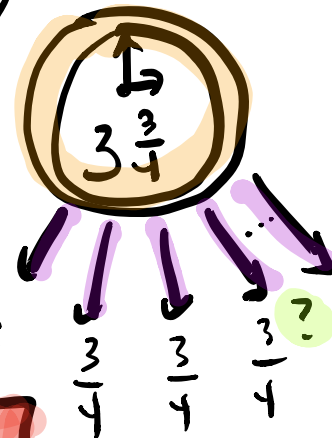
Write and solve an equation to represent the situation.

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

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

5 rounds of play

Draw a diagram.



Keep Switch Flip  
⊗  $\frac{a}{b} \rightarrow \frac{b}{a}$