Fractions as Division: Word Problems
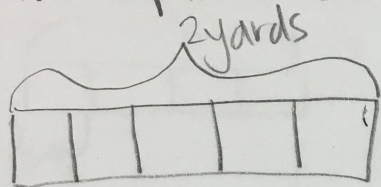
Division of whole numbers with quotients in fraction or whole number form.

M4 L5

Don't forget to L.O.V.E. your word problems AND check for

1. A total of 2 yards of fabric is used to make 5 identical pillows. How much fabric is used for each pillow?

TS: Each pillow uses $\frac{2}{5}$ fabric.

2 yards

5 units = 2 yd

1 unit =

$\sqrt{5 \times \frac{2}{5}}$

$= \frac{10}{5}$

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

or

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

$= 2$

2. An ice cream shop uses 4 pints of ice cream to make 6 sundaes. How many pints of ice cream are used for each sundae?

TS: Each sundae uses $\frac{4}{6}$ pints of ice cream.

4 pints
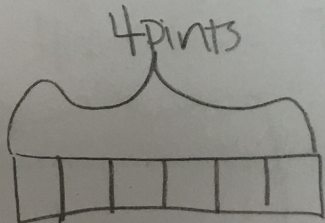
6 units = 4

1 unit = $4 \div 6$

$= \frac{4}{6}$

$= \frac{2}{3}$

$\frac{1}{6}$ of $4 = \frac{4}{6} = \frac{2}{3}$

$\sqrt{6 \times \frac{2}{3}}$

$= \frac{12}{3}$
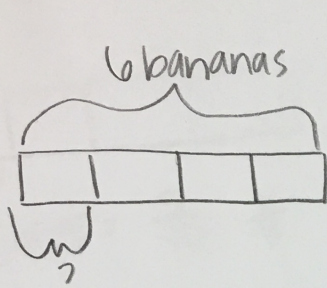
$= 4$

Fractions as Division: Word Problems

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5

3. An ice cream shop uses 6 bananas to make 4 identical sundaes. How many bananas are used to make each sundae?

6 bananas

TS: $1\frac{1}{2}$ bananas are used to make each

?

4 units = 6

1 unit = 6 ÷ 4

$= \frac{6}{4}$

$= 1\frac{2}{4} = 1\frac{1}{2}$

$\frac{1}{4}$ of 6 = $\frac{6}{4} = 1\frac{2}{4} = 1\frac{1}{2}$

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4. Julian has to read 4 articles for school. He has 8 nights to read them. If he reads the same amount each night, how many articles will he have to read per night? What fraction of the reading assignment will he read each night?
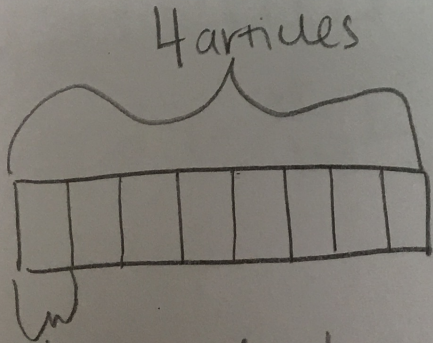
4 articles

TS: He must read $\frac{1}{2}$ of an article each night.

$\frac{1}{8}$ of 4 = $\frac{4}{8} = \frac{1}{2}$

TS: Since Julian is reading for each of 8 nights, he reads $\frac{1}{8}$ of his total assignment each night.

Division of whole numbers with quotients in fraction or whole number form.

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5. 40 students share 5 pizzas equally. How much pizza did each student receive? What fraction of the pizza did each student receive?

TS: Each student receives $\frac{5}{40}$ of pizza.

5 pizzas

40

$\frac{1}{40}$ of 5 = $\frac{5}{40}$ = $\frac{1}{8}$
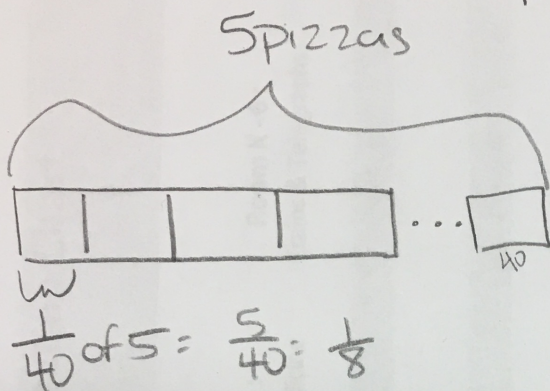
6. Lillian had 2 two-liter bottles of soda and distributed them equally between 10 glasses. How many liters of soda was in each glass? How many milliliters of soda was in each glass? How much of all the soda she had was in each glass?

TS: There are $\frac{4}{10}$ L of soda in each glass.

4L
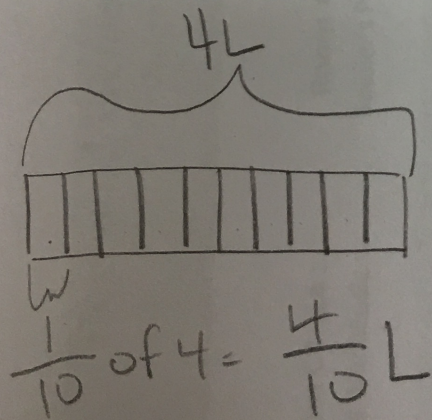
TS: Each glass will have 400 mL of soda.

$\frac{1}{10}$ of 4 = $\frac{4}{10}$ L

$\frac{4}{10}$ = 0.4

0.4 × 1000 = 400 mL