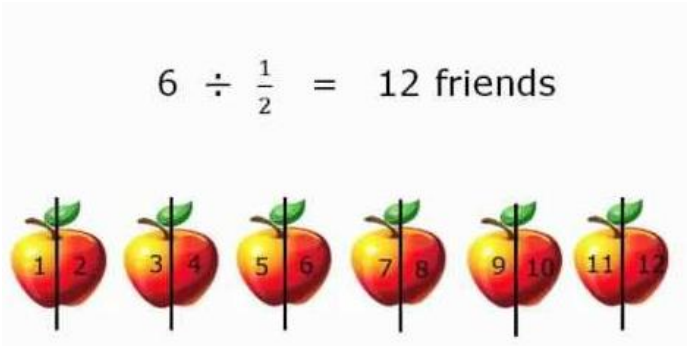
5.NF.7

Writing Word Problems:

Dividing a Whole Number by a Unit Fraction



Source: K-5 Math Teaching Resources

Writing Word Problems: Dividing a Whole Number by a Unit Fraction

Materials:

- Recording sheet or math journal
- Cuisenaire rods and other fraction manipulatives

Directions:

1) Write a story context to illustrate the following problems.

$$\text{a) } 6 \div \frac{1}{4} \qquad \text{b) } 5 \div \frac{1}{2} \qquad \text{c) } 4 \div \frac{1}{8} \qquad \text{d) } 8 \div \frac{1}{3}$$

2) For each problem, find the answer and draw a picture to represent your thinking.
3) Use multiplication to reason about whether your answer makes sense.

Example: $4 \div \frac{1}{8} = ?$ A bowl holds 4 cups of rice. If I use a measuring cup that holds $\frac{1}{8}$ of a cup, how many times will I need to fill the measuring cup in order to fill the entire bowl?

Think: How many $\frac{1}{8}$'s are in 4? A whole has $\frac{8}{8}$ so 4 wholes would be $\frac{8}{8} + \frac{8}{8} + \frac{8}{8} + \frac{8}{8} = \frac{32}{8}$

I created 4 boxes. Each box represents 1 cup of rice. I divided each box into eighths to represent the size of the measuring cup.

My answer is the number of small boxes, which is 32. That makes sense since 4 x 8 = 32.

Name _____ Date _____

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Write a story context to illustrate the following problems. For each problem, find the answer and draw a picture to represent your thinking. Use multiplication to reason about whether your answer makes sense.

$6 \div \frac{1}{4}$	$5 \div \frac{1}{2}$
$4 \div \frac{1}{8}$	$8 \div \frac{1}{3}$

Graphics and Fonts