Name: _____

Modeling Multiplication and Division of Fractions

Follow along with the video and take notes.

How many $\frac{1}{4}$ liter glasses can be filled from five liters of lemonade?

Of the students in a mathematics class, $\frac{2}{3}$ of them passed the course. Of those who passed, $\frac{1}{8}$ received A's. What part of the class received A's?



Practice

Now you try it!

Solve these application problems.

1. Of the $\frac{2}{3}$ who passed, $\frac{1}{4}$ received B's. What part of the class received B's?

2. Of the $\frac{1}{3}$ who did not pass, $\frac{2}{5}$ received F's. What part of the class received F's?

3. How many $\frac{1}{2}$ gallon pitchers can be filled with 3 gallons of juice?

4. How many $\frac{1}{2}$ pound loaves of pumpernickel bread can be made from 6 pounds of dough?

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3. Of the products coming off an assembly line, $\frac{4}{5}$ are rated "good."

(a) Of the good parts, $\frac{1}{10}$ needed extensive repair before sale. What fractional part of the total number of parts needed extensive repair?

(b) Of the good parts, $\frac{3}{4}$ needed a moderate amount of repair before sale. What fractional part of the total parts needed moderate repair?

(c) Of the parts that were not rated as "good," $\frac{3}{7}$ had to be trashed completely. What fractional part of the total parts had to be trashed completely?

4. Of the automobiles for sale at a local dealership, $\frac{1}{3}$ are SUV's.

(a) Of the SUV's, $\frac{2}{5}$ are black. What fractional part of the total number of automobiles are black SUV's.

(b) Of the SUV's, $\frac{1}{8}$ are red. What fractional part of the total number of automobiles are red SUV's.

(c) Of the automobiles that are not SUV's, $\frac{3}{8}$ are blue. What fractional part of the total number of automobiles are blue and not an SUV.

TRUE/FALSE QUESTIONS

A. When multiplying fractions, numerator times numerator gives the numerator of the product. _____

B. When the numerator and denominator share a common factor, we can divide out that factor. _____

C. $\frac{c}{d}$ and $\frac{d}{c}$ are opposites of each other. _____

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