

Finding Fractional Parts of a Whole

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SCOS

- 1.01 Develop a sense of rational numbers
- 1.02 Add, subtract non negative numbers
- 1.03 Develop flexibility in problem solving

Chris wants to make a cool new band shirt from some fabric he found at the store. The fabric is 72 inches long. Chris needs $\frac{2}{3}$ of that to make the shirt. How can he figure out how much fabric will he need?



First, Chris figures out how to write the problem in the proper order. He writes it like this...

$$\frac{2}{3} \text{ of } 72 = ?$$

Chris' friend, Eric, reminds him that the word 'of' means to multiply. So now Chris has this...

$$\frac{2}{3} \times 72 = ?$$

Yo, Dude, we like, studied that!



Now that Chris knows he has to multiply, he applies the rules he has learned about multiplying fractions. His first rule is make both sides look the same. Since he can't make the fraction into a whole number, he must make the whole number into a fraction. Like this....

$$\frac{2}{3} \times \frac{72}{1} = ?$$

Now Chris can multiply to find his answer.

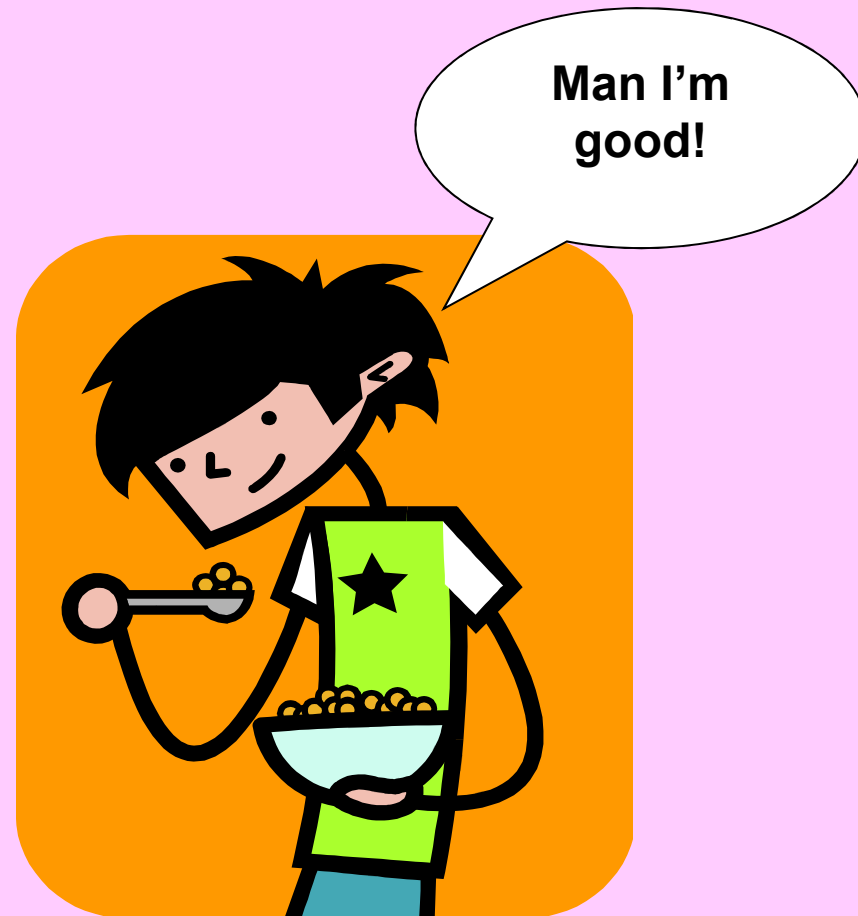
$$\frac{2}{3} \times \frac{72}{1} = \frac{144}{3}$$



Before Chris can begin to cut his fabric, he has to change the improper fraction to find how many inches he will need to cut. To do that, he needs to divide the denominator into the numerator.

$$\begin{array}{r} 144 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 48 \\ | \\ 12 \\ \hline 2 \end{array}$$



Chris has found
out that

$\frac{2}{3}$ of 72 is 48.

He's ready
to rock and
sew!



