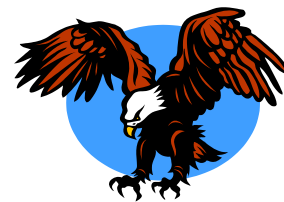




Dividing Fractions



****Think SOAR!****

SAME

Keep the first fraction the same.

****UNLESS** you have a mixed number.

Rewrite mixed numbers as improper fractions!

$$\frac{4}{5} \div \frac{2}{3} =$$

OPPPOSITE

The opposite of division is multiplication!

$$\frac{4}{5} \times \frac{2}{3} =$$

And RECIPROCAL

Use the reciprocal of the second fraction!

$$\frac{4}{5} \times \frac{3}{2} =$$

****Do not forget to change mixed numbers BEFORE SOAR!**

Example: $2\frac{3}{4} \div 1\frac{5}{8} = \frac{11}{4} \div \frac{13}{8}$

$$= \frac{11}{4} \times \frac{8}{13}$$

$$= \frac{11 \times 8}{4 \times 13} = \frac{11 \times 2 \times \cancel{4}}{\cancel{4} \times 13} = \frac{22}{13}$$

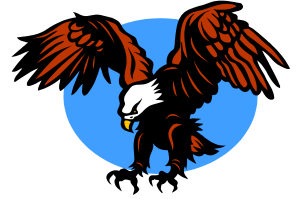
$$\frac{4}{5} \times \frac{3}{2} = \frac{12}{10}$$

$$\frac{12}{10} = 1\frac{1}{5}$$



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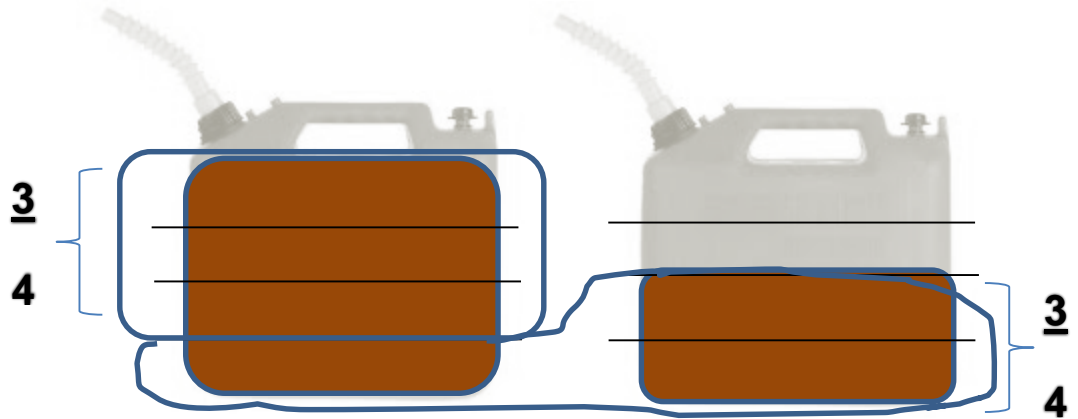
$$= \frac{11 \times 8}{4 \times 13} = \frac{11 \times 2 \times \cancel{4}}{\cancel{4} \times 13} = \frac{22}{13}$$

$$\frac{12}{10} = 1\frac{1}{5}$$

Dividing Fractions

** Remember that when you divide two numbers, you are finding out how many times the *divisor* fits *into* the *dividend*.

David's lawn mower holds $\frac{3}{4}$ gallon of gas. If he has $1\frac{1}{2}$ gallons of gas, how many times can he fill up his lawn mower?



So, how many $\frac{3}{4}$'s will fit inside $1\frac{1}{2}$?

$$1\frac{1}{2} \div \frac{3}{4}$$

$$\frac{3}{2} \div \frac{3}{4}$$

$$\frac{3}{2} \times \frac{4}{3}$$

$$\frac{12}{6} = 2$$

$\frac{3}{4}$ fits inside $1\frac{1}{2}$ two times. David can fill up his lawn mower twice.

You Try!

$$\frac{5}{6} \div \frac{5}{12}$$

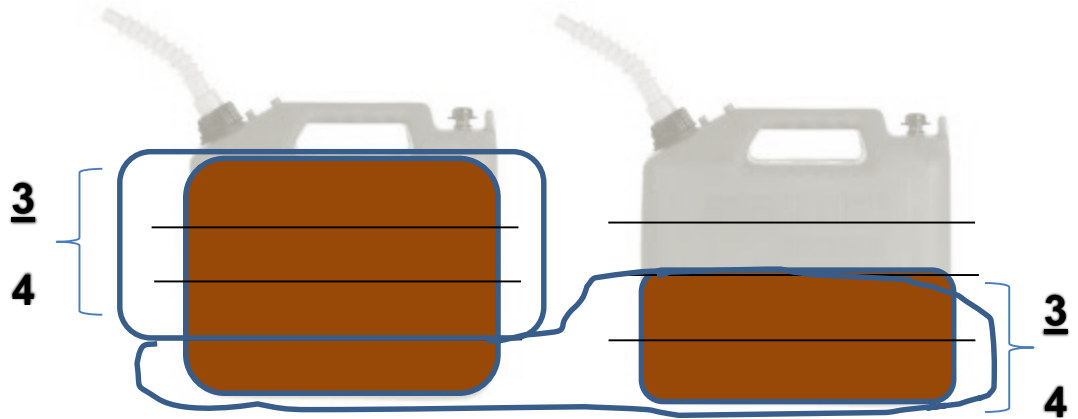
$$\frac{9}{10} \div \frac{3}{5}$$

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

Dividing Fractions

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