


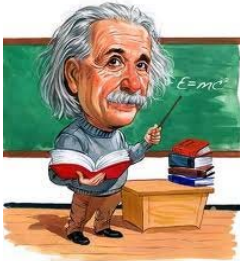
MasterMath

Number Sense

MULTIPLYING WITH FRACTIONS



MULTIPLYING WITH FRACTIONS




You don't have to be Einstein to work with fractions.

You just need to remember a couple rules

MULTIPLYING WITH FRACTIONS

Reminder!



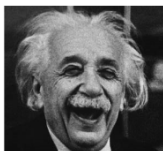
Numerator

Denominator

MULTIPLYING WITH FRACTIONS

Fractions x Fractions

Multiply the two Denominators,
and the two Numerators, and
then Simplify



$$\frac{1}{2} \times \frac{3}{5} =$$

$$\frac{1 \times 3}{2 \times 5} = \frac{3}{10}$$

MULTIPLYING WITH FRACTIONS

You try it!

$$\frac{1}{2} \times \frac{1}{8}$$

MULTIPLYING WITH FRACTIONS

You try it!

$$\frac{1}{2} \times \frac{1}{8} =$$

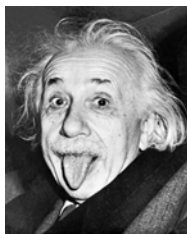
$$\frac{1 \times 1}{2 \times 8} = \frac{1}{16}$$

MULTIPLYING WITH FRACTIONS

Fractions x Whole Numbers

Multiply the Whole Number times the Numerator, and then Simplify

$$6 \times \frac{1}{2} = \frac{6 \times 1}{2} = \frac{6}{2}$$

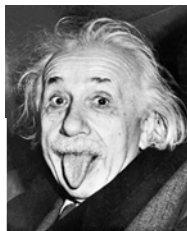


MULTIPLYING WITH FRACTIONS

Fractions x Whole Numbers

Multiply the Whole Number times the Numerator, and then Simplify

$$\frac{6}{2} = \frac{6 \div 2}{2 \div 2} = \frac{3}{1} = 3$$



MULTIPLYING WITH FRACTIONS

You try it!

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

MULTIPLYING WITH FRACTIONS

You try it!

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

$$\frac{6}{1} \times \frac{2}{3} = \frac{12}{3} = 4$$

or

$$\frac{6 \times 2}{3} = \frac{12}{3} = 4$$

MULTIPLYING WITH FRACTIONS

Fractions x Mixed Numbers

Convert the Mixed Number to an Improper Fraction:

$$3 = \frac{3}{1} = \frac{3 \times 2}{1 \times 2} = \frac{6}{2}$$

$$= \frac{3 \times 5}{1 \times 5} = \frac{15}{5}$$

$$3 \frac{2}{6} = \frac{18}{6} + \frac{2}{6} = \frac{20}{6}$$

3 over 6 ~

$$\frac{3 \times 6}{1 \times 6} = \frac{18}{6}$$

MULTIPLYING WITH FRACTIONS

Fractions x Mixed Numbers

Convert the Mixed Number to an Improper Fraction:

$$2 \frac{1}{2} \times \frac{2}{3} = \left(2 + \frac{1}{2}\right) \times \frac{2}{3} = \left(\frac{2}{1} + \frac{1}{2}\right) \times \frac{2}{3}$$

$$= \left(\frac{2 \times 2}{1 \times 2} + \frac{1}{2}\right) \times \frac{2}{3} = \left(\frac{4}{2} + \frac{1}{2}\right) \times \frac{2}{3} =$$

$$\frac{5}{2} \times \frac{2}{3} = \frac{10}{6} = \frac{5}{3} = 1 \frac{2}{3}$$

MULTIPLYING WITH FRACTIONS

You try it!

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

MULTIPLYING WITH FRACTIONS

You try it!

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

$$1\frac{1}{2} \times 1\frac{1}{2} = \left(\frac{2}{2} + \frac{1}{2}\right) \times \frac{1}{2} =$$

$$\frac{3}{2} \times \frac{1}{2} = \frac{3}{4}$$

MULTIPLYING WITH FRACTIONS

You try it!

$3\frac{1}{5} \times \frac{5}{8}$

MULTIPLYING WITH FRACTIONS

You try it!

$$3\frac{1}{5} \times \frac{5}{8}$$

$$3\frac{1}{5} \times \frac{5}{8} =$$

$$\overset{2}{\cancel{16}} \times \frac{\cancel{5}}{\cancel{8}_1} =$$

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

$$3\frac{1}{5} = \frac{3 \times 5}{5} + \frac{1}{5} =$$
$$\frac{15}{5} + \frac{1}{5} = \frac{16}{5}$$

MULTIPLYING WITH FRACTIONS 

You try it!

Now, try it on your own. Open www.MasterMath.info, download *Multiplying with Fractions*, and test your skill.

MULTIPLYING WITH FRACTIONS 
