



Year 5 - Fractions

Key vocabulary

Fraction	A part of a whole.
Numerator	The top number in the fraction which shows how many parts you have.
Denominator	The bottom number in the fraction which shows how many equal parts the item is divided into.
Proper Fraction	A proper fraction is a fraction where the numerator is less than the denominator.
Improper Fraction	A fraction where the numerator is greater than the denominator.
Mixed Number	A number that is made up of a whole number and a fraction.

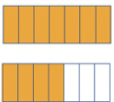
Fractions, Decimals and Percentage Equivalents

Decimal	Percentage	Fraction
0.5	50%	$\frac{1}{2}$
0.25	25%	$\frac{1}{4}$
0.75	75%	$\frac{3}{4}$
0.2	20%	$\frac{1}{5}$
0.1	10%	$\frac{1}{10}$

Basic Facts

Improper Fractions

Improper fractions and mixed numbers show fractions more than a whole.

$$\frac{11}{7} = 1 \frac{4}{7}$$


Equivalent Fractions

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

(Four-Eighths) (Two-Quarters) (One-Half)



Proper Fractions

Proper Fractions

A fraction is a part of a whole.



$\frac{3}{5}$
 numerator = number of parts referred to
 — fractions bar = divided by / out of
 denominator = number of parts in whole

Fractions are divisions yet to be done...

$$\frac{1}{8} = 1 \div 8 = 0.125$$

Mixed Fractions



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

(one and three-quarters)

Basic Facts

Adding and Subtracting Fractions

$$\frac{1}{3} + \frac{1}{4} = \frac{?}{?}$$

First make the bottom numbers (the denominators) the same

Multiply top and bottom of $\frac{1}{3}$ by 4:

$$\frac{1 \times 4}{3 \times 4} + \frac{1}{4} = \frac{?}{?}$$

And multiply top and bottom of $\frac{1}{4}$ by 3:

$$\frac{1 \times 4}{3 \times 4} + \frac{1 \times 3}{4 \times 3} = \frac{?}{?}$$

Now do the calculations:

$$\frac{4}{12} + \frac{3}{12} = \frac{4+3}{12} = \frac{7}{12}$$

Multiplying Fractions

Step 1. Multiply the top numbers:

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

Step 2. Multiply the bottom numbers:

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

Step 3. Simplify the fraction :

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