

What do I need to be able to do?

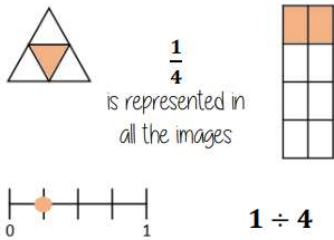
By the end of this unit you should be able to:

- Convert between mixed numbers and fractions
- Add/Subtract unit fractions (same denominator)
- Add/Subtract fractions (same denominator)
- Add/Subtract fractions from integers
- Use equivalent fractions
- Add/Subtract any fractions
- Add/Subtract improper fractions and mixed numbers
- Use fractions in algebraic contexts

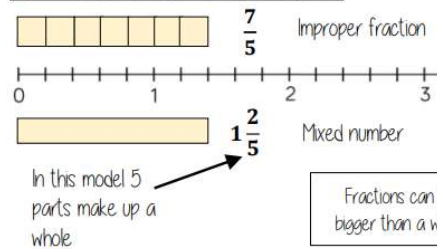
Keywords

- Numerator:** the number above the line on a fraction. The top number. Represents how many parts are taken
- Denominator:** the number below the line on a fraction. The number represent the total number of parts
- Equivalent:** of equal value
- Mixed numbers:** a number with an integer and a proper fraction
- Improper fractions:** a fraction with a bigger numerator than denominator
- Substitute:** replace a variable with a numerical value
- Place value:** the value of a digit depending on its place in a number. In our decimal number system, each place is 10 times bigger than the place to its right

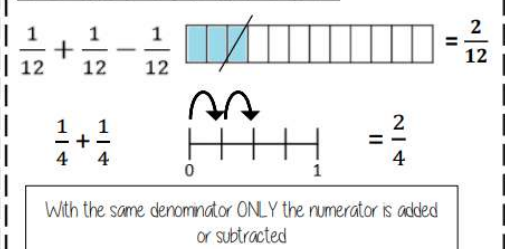
Representing Fractions



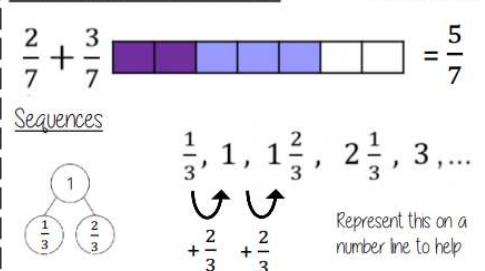
Mixed numbers and fractions



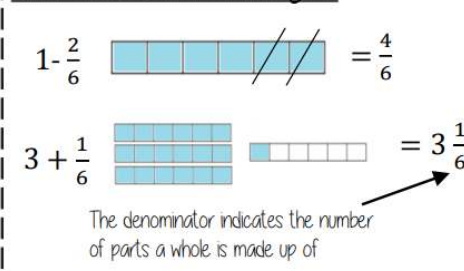
Add/Subtract unit fractions Same denominator



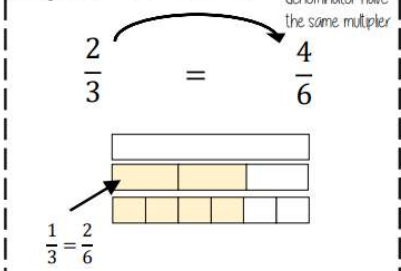
Add/Subtract fractions Same denominator



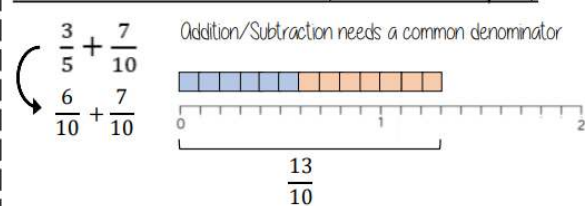
Add/Subtract from integers



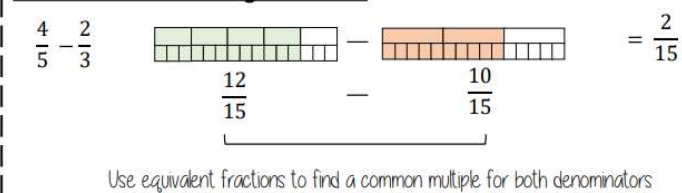
Equivalent fractions Numerator and denominator have the same multiplier



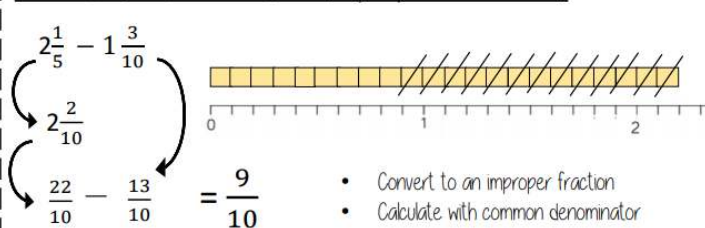
Add/Subtraction fractions (common multiples)



Add/Subtraction any fractions



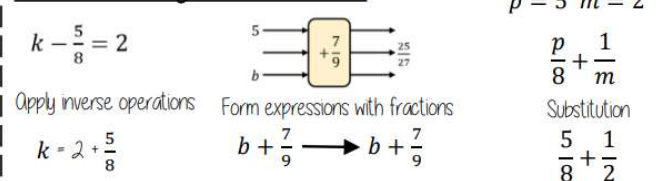
Add/Subtraction fractions (improper and mixed)



Partitioning method

$$2 \frac{1}{5} - 1 \frac{3}{10} = 2 \frac{2}{10} - 1 \frac{3}{10} = 2 \frac{2}{10} - 1 - \frac{3}{10} = 1 \frac{2}{10} - \frac{3}{10} = \frac{9}{10}$$

Fractions in algebraic contexts



Fractions and decimals

