

Commutative Property

The word “commutative” comes from “commute” or “move around”, so the **Commutative Property** is the mathematical property for moving stuff around.

It works with addition:

$$a + b = b + a$$

$$3 + 2 = 2 + 3 (= 5)$$

It works with multiplication:

$$a \times b = b \times a$$

$$3 \times 2 = 2 \times 3 (= 6)$$

BUT, it does not work with subtraction or division:

- $3 - 2 = 1$ which does not equal $2 - 3 = -1$
- $3 / 2 = 1.5$ which does not equal $2 / 3 = 0.6667$

HOWEVER, it does work when you think of subtraction as adding a negative:

- $3 + (-2) = 1$ does equal $(-2) + 3 = 1$