

**Commutative
Property**

**Associative
Property**

**Distributive
Property**

**Identity
Property**

**Additive
Inverse**

**Multiplicative
Inverse**

glue this side in notebook

For addition $a + b = b + a$
For multiplication $ab = ba$

For addition $(a + b) + c = a + (b + c)$
For multiplication $(ab)(c) = a(bc)$


$$a(b + c) = ab + ac$$

For addition $a + 0 = a$
For multiplication $1a = a$

$$a + (-a) = 0$$

$$\left(\frac{a}{b}\right)\left(\frac{b}{a}\right) = 1 \text{ if } a, b \neq 0$$