

Important Properties

PROPERTIES OF ADDITION

- Identity Property of Zero: $a + 0 = a$
- Inverse Property: $a + (-a) = 0$
- Commutative Property: $a + b = b + a$
- Associative Property: $a + (b + c) = (a + b) + c$

PROPERTIES OF MULTIPLICATION

- Property of Zero: $a \cdot 0 = 0$
- Identity Property of One: $a \cdot 1 = a$, when $a \neq 0$.
- Inverse Property: $a \cdot \frac{1}{a} = 1$, when $a \neq 0$.
- Commutative Property: $a \cdot b = b \cdot a$
- Associative Property: $a \cdot (b \cdot c) = (a \cdot b) \cdot c$

PROPERTIES OF DIVISION

- Property of Zero: $\frac{0}{a} = 0$, when $a \neq 0$.
- Property of One: $\frac{a}{a} = 1$, when $a \neq 0$.
- Identity Property of One: $\frac{a}{1} = a \cdot 1$