

Commutative
Property

Associative
Property

Identity Property
for Addition or
Multiplication

Inverse Property
for Addition or
Multiplication

Distributive
Property

Zero Product
Property

"**CO**mmutative"
= **Ch**ange **O**rder

$$\begin{aligned}3 + 2 &= \underline{\quad} + \underline{\quad} \\5 \cdot 7 &= \underline{\quad} \cdot \underline{\quad} \\17 + 8 + 3 &= 17 + \underline{\quad} + \underline{\quad} \\5 \cdot 18 \cdot 2 &= 5 \cdot \underline{\quad} \cdot \underline{\quad}\end{aligned}$$

Associate with
Different Groups
= move parentheses

$$\begin{aligned}6 + (4 + 8) &= (\underline{\quad} + \underline{\quad}) + 8 \\4 \cdot (5 \cdot 9) &= (\underline{\quad} \cdot 5) \cdot \underline{\quad} \\(4 + 2) + -2 &= 4 + (2 + -2)\end{aligned}$$

Add Zero to keep the
number's identity
OR
Multiply by One to keep the
number's identity

$$\begin{aligned}975 + 0 &= \underline{\quad} \\0 + \underline{\quad} &= -7 \\5 + (-3 + 3) &= \underline{\quad} \\-28 \cdot \underline{\quad} &= -28 \\ \underline{\quad} \cdot 1 &= 3.75\end{aligned}$$

Add a number to its
opposite, the answer is 0.
OR
Multiply a number by its
reciprocal, the answer is 1.

$$\begin{aligned}3 + \underline{\quad} &= 0 \\-7.5 + \underline{\quad} &= 0 \\2 \cdot \frac{1}{2} &= \underline{\quad} \\ \frac{3}{4} \cdot \underline{\quad} &= 1\end{aligned}$$

Distribute = Give out
Distribute number to
each part



$$\begin{aligned}4 \cdot (20 + 3) &= 4 \cdot \underline{\quad} + 4 \cdot \underline{\quad} \\6 \cdot (30 - 1) &= \underline{\quad} \cdot 30 - \underline{\quad} \cdot 1 \\8(\$0.99) &= 8(\$1) - 8(\$.\underline{\quad})\end{aligned}$$

Zero Product =
Zero Times a number

$$\begin{aligned}21 \cdot 0 &= \underline{\quad} \\-8 \cdot \underline{\quad} &= 0 \\6 \cdot (-4 + 4) &= \underline{\quad} \\0 \cdot (793 \cdot 516) &= \underline{\quad}\end{aligned}$$