

Properties of Real Numbers

Property	Example
<p style="text-align: center;"><u>Commutative Property of Addition</u></p> <p>For any real numbers a and b, $a + b = b + a$</p>	$2 + 3 = 3 + 2$
<p style="text-align: center;"><u>Commutative Property of Multiplication</u></p> <p>For any real numbers a and b, $ab = ba$</p>	$4 \cdot 5 = 5 \cdot 4$
<p style="text-align: center;"><u>Associative Property of Addition</u></p> <p>For any real numbers a, b and c, $(a + b) + c = a + (b + c)$</p>	$(37 + 95) + 5 = 37 + (95 + 5)$
<p style="text-align: center;"><u>Associative Property of Multiplication</u></p> <p>For any real numbers a, b and c, $(ab)c = a(bc)$</p>	$(83 \cdot 25) \cdot 4 = 83 \cdot (25 \cdot 4)$
<p style="text-align: center;"><u>Distributive Property</u></p> <p>For any real numbers a, b and c, $a(b + c) = ab + ac$</p>	$3(4 + 5) = 3 \cdot 4 + 3 \cdot 5$
<p style="text-align: center;"><u>Additive Identity Property</u></p> <p>For any real number a, $a + 0 = 0 + a = a$</p>	$6 + 0 = 0 + 6 = 6$
<p style="text-align: center;"><u>Multiplicative Identity Property</u></p> <p>For any real number a, $a \cdot 1 = 1 \cdot a = a$</p>	$4 \cdot 1 = 1 \cdot 4 = 4$
<p style="text-align: center;"><u>Additive Inverse Property</u></p> <p>For any real number a, there is a unique number $-a$ such that</p> $a + (-a) = -a + a = 0$	$6 + (-6) = -6 + 6 = 0$
<p style="text-align: center;"><u>Multiplicative Inverse Property</u></p> <p>For any real number a, there is a unique number $\frac{1}{a}$ such that</p> $a \cdot \frac{1}{a} = \frac{1}{a} \cdot a = 1$	$8 \cdot \frac{1}{8} = \frac{1}{8} \cdot 8 = 1$
<p style="text-align: center;"><u>Multiplication Property of Zero</u></p> <p>For any real number a, $a \cdot 0 = 0$</p>	$0 \cdot 5 = 5 \cdot 0 = 0$