

Properties of Equality

Additive Property of Equality

If $a = b$, then $a + c = b + c$

Subtraction Property of Equality

If $a = b$, then $a - c = b - c$

Multiplication Property of Equality

If $a = b$, then $a \cdot c = b \cdot c$

Division Property of Equality

If $a = b$, then $a \div c = b \div c$

Any operation done to the left side must also be done to the right side

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Solve the following equations using the properties of equality

$$4x + 2x - 2 = 22$$

$$12 = 2(x + 3) - 10$$

Solve the following equations using the properties of equality

$$4x - 12 = -2(x - 3)$$

$$\frac{3}{7}x + 8 = 14$$

Solve the following equations using the properties of equality

$$\frac{1}{2}x - \frac{7}{3} = -\frac{1}{3}x + \frac{9}{4}$$

Solve the following equations using the properties of equality

$$-1.5x + 4.75 = 9.25$$

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