Algebraic Properties Card Sort

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| **Equation** | *A statement that two expressions are equal.* | $$5x+9=24$$ |
| **Inverse Operations** | *Two operations that undo each other.* | Addition and Subtraction |
| **Equivalent Equations** | *Equations that have the same solutions.* | $$x+2=7 and 2x+1=11$$ |
| **Addition Property****of Equality** | *Adding the same number to each side of an equation produces an equivalent equation.* *If a=b, then a + c = b + c.* | $$x-5=7$$$$\left(x-5\right)+5=7+5$$$$x=12$$ |
| **Subtraction Property****of Equality** | *Subtracting the same number from each side of an equation produces an equivalent equation.* *If a=b, then a – c = b – c.* | $$x+4=10$$$$\left(x+4\right)-4=10-4$$$$x=6$$ |
| **Multiplication Property****of Equality** | *Multiplying each side of an equation by the same nonzero number produces an equivalent equation.* *If a=b, then* $a∙c=b∙c$*.* | $$\frac{x}{5}=7$$$$\left(\frac{x}{5}\right)∙5=7∙5$$$$x=35$$ |
| **Division Property****of Equality** | *Dividing each side of an equation by the same nonzero number produces an equivalent equation.* *If a=b, then* $a÷c=b÷c$*.* | $$6x=24$$$$\frac{6x}{6}=\frac{24}{6}$$$$x=4$$ |