| Words | Symbols | Properties of Equality |
| :---: | :---: | :---: |
| Adding the same value to each side of an equation produces an equivalent equation. | $\begin{gathered} \text { If } a=b, \\ \text { then } \\ a+\boldsymbol{c}=b+\boldsymbol{c} \end{gathered}$ | Addition Property of Equality |
| Subtracting the same value from each side of an equation produces an equivalent equation. | $\begin{gathered} \text { If } a=b \\ \text { then } \\ a-c=b-c . \end{gathered}$ | Subtraction Property of Equality |
| Multiplying each side of an equation by the same nonzero value produces an equivalent equation. | $\begin{gathered} \text { If } a=b \\ \text { then } \\ a \cdot c=b \cdot c . \end{gathered}$ | Multiplication Property of Equality |
| Dividing each side of an equation by the same nonzero value produces an equivalent equation. | If $a=b$ <br> then $\frac{a}{c}=\frac{b}{c} .$ | Division Property of Equality |
| Grouping can be interchanged when adding and multiplying. | $\begin{gathered} a+(b+c)=(a+b)+c \\ a \cdot(b \cdot c)=(a \cdot b) \cdot c \end{gathered}$ | Associative Property of Addition and Multiplication |
| Order can be interchanged when adding and multiplying. | $\begin{gathered} a+b=b+a \\ \text { AND } \\ a \cdot b=b \cdot a \end{gathered}$ | Commutative Property of Addition and Multiplication |
| Multiply a single term and two or more terms in a set of parentheses. | $a(b+c)=a b+a c$ | Distributive Property |

Properties of equality foldable instructions: Cut on dashed lines, fold on double lines.


