## Algebra Properties (SOL 6.19)

Commutative Property of Addition or Multiplication- The order of the addends or factors can be switched and the sum or $\qquad$ remains the $\qquad$ .

Example: $2+5=5+2$ $3 \cdot 6=6 \cdot 3$

Associative Property of Addition- Property that states that when grouping of addends is $\qquad$ _, the sum remains the same.

Example: $(2+3)+4=(3+4)+2$

Associative Property of Multiplication- Property that states the way factors are $\qquad$ does not change the

Example: (6.4). $2=(4$. 2) . 6

Identity Property of Addition- The property that states when you add a $\qquad$ to a number, the result is that number.

Example: $4+0=4$

Identity Property of Multiplication- The property that states that the product of any number and $\qquad$ is that number.
Example: (-6) . $1=-6$
$4 \cdot 1=4$

Multiplicative Property of Zero- The property that states any number $\qquad$ zero is zero.

Example: $\quad 4 \times 0=0$
$5 \times 0=0$

Multiplicative Inverse Property- The property that states the product of a number multiplied by a fraction with one over that number is equal to one.

Example:

$3 \cdot \frac{1}{3}=1$

Distributive Property- Property that says multiplying a sum by a number is the same as multiplying each addend in the sum by the number and then adding the products.

Example: $6(8)=6(3+5) \quad(3 \cdot 4)+(3 \cdot 2)=3(4+2)$

1. $6+2=2+6$ $\qquad$
2. $5+0=5$ $\qquad$
3. $8+(-3)=(-3)+8$ $\qquad$
4. $7.1=7$ $\qquad$
5. $4 \times 0=$ $\qquad$
6. $8.1=8$ $\qquad$
7. $(2+3)+7=2+(7+3)$ $\qquad$
8. $-3+0=$ $\qquad$
9. $2(3+4)=2(3)+2(4)$ $\qquad$
10. $8 \cdot \frac{1}{8}=1$
