

10. **Commutative**

Travel



Algebraically: ...of addition: $a + b = \underline{\quad} + \underline{\quad}$

...of multiplication: $ab = \underline{\quad}$

Numerically:

$$12 \cdot 4 =$$

11. **Associative**

Group



Algebraically: ...of addition:

$$(a + b) + c = \underline{\quad} + \underline{\quad} + \underline{\quad}$$

...of multiplication:

$$(ab)c = \underline{\quad} \underline{\quad} \underline{\quad}$$

Numerically:

$$\left(10 \cdot \frac{1}{3}\right) 15 =$$

Name the property illustrated by each statement.

$$x + y = y + x$$

$$5(m \cdot n) = (5m)n$$

$$0 = 100 \cdot 0$$

$$6(u + 3p) = 6u + 18p$$

$$gx = xg$$

$$px + n = xp + n$$

$$15(c + d) = 15(d + c)$$

$$1rq = rq$$

$$8r^2 = 8r^2$$

$$\frac{1}{2} \cdot 2 = 1$$

Additive Identity

Multiplicative Identity

Multiplicative Property
of Zero

Multiplicative Inverse

Reflexive

Symmetric

Transitive

Substitution

Distributive

Commutative⁺Commutative[•]Associative⁺Associative[•]

**QUESTIONS I NEED TO ASK
IN CLASS:**