

2-5 Practice A Algebraic Proof

For Exercises 1–12, write the letter of each property next to its definition.

The letters a , b , and c represent real numbers.

- If $a = b$, then $b = a$. _____
 - If $a = b$, then $ac = bc$. _____
 - $\overline{AB} \cong \overline{AB}$ _____
 - $a = a$ _____
 - If $a = b$, then $a + c = b + c$. _____
 - $a(b + c) = ab + ac$ _____
 - If $a = b$ and $b = c$, then $a = c$. _____
 - If $\angle P \cong \angle Q$, then $\angle Q \cong \angle P$. _____
 - If $\angle A \cong \angle B$ and $\angle B \cong \angle C$, then $\angle A \cong \angle C$. _____
 - If $a = b$ and $c \neq 0$, then $\frac{a}{c} = \frac{b}{c}$. _____
 - If $a = b$, then b can be substituted for a in any expression. _____
 - If $a = b$, then $a - c = b - c$. _____
- Addition Property of Equality
 - Subtraction Property of Equality
 - Multiplication Property of Equality
 - Division Property of Equality
 - Reflexive Property of Equality
 - Symmetric Property of Equality
 - Transitive Property of Equality
 - Substitution Property of Equality
 - Distributive Property
 - Reflexive Property of Congruence
 - Symmetric Property of Congruence
 - Transitive Property of Congruence

2-5 Practice A Algebraic Proof

For Exercises 1–12, write the letter of each property next to its definition.

The letters a , b , and c represent real numbers.

- If $a = b$, then $b = a$. _____
 - If $a = b$, then $ac = bc$. _____
 - $\overline{AB} \cong \overline{AB}$ _____
 - $a = a$ _____
 - If $a = b$, then $a + c = b + c$. _____
 - $a(b + c) = ab + ac$ _____
 - If $a = b$ and $b = c$, then $a = c$. _____
 - If $\angle P \cong \angle Q$, then $\angle Q \cong \angle P$. _____
 - If $\angle A \cong \angle B$ and $\angle B \cong \angle C$, then $\angle A \cong \angle C$. _____
 - If $a = b$ and $c \neq 0$, then $\frac{a}{c} = \frac{b}{c}$. _____
 - If $a = b$, then b can be substituted for a in any expression. _____
 - If $a = b$, then $a - c = b - c$. _____
- Addition Property of Equality
 - Subtraction Property of Equality
 - Multiplication Property of Equality
 - Division Property of Equality
 - Reflexive Property of Equality
 - Symmetric Property of Equality
 - Transitive Property of Equality
 - Substitution Property of Equality
 - Distributive Property
 - Reflexive Property of Congruence
 - Symmetric Property of Congruence
 - Transitive Property of Congruence