

2-5 Algebraic Proofs

Solve for x using justifications

$$6x + 4 = 10(x - 2)$$

$$6x + 4 = 10(x - 2)$$

Given

$$6x + 4 = 10x - 20$$

Distributive Property

$$\begin{array}{r} -6x \quad -6x \\ 6x + 4 = 10x - 20 \end{array}$$

$$4 = 4x - 20$$

Subtraction Property

$$\begin{array}{r} +20 \quad +20 \\ 4 = 4x - 20 \end{array}$$

$$\underline{24} = \underline{4x}$$

Addition Property

$$\begin{array}{r} 4 \quad 4 \\ \underline{24} = \underline{4x} \end{array}$$

$$6 = x$$

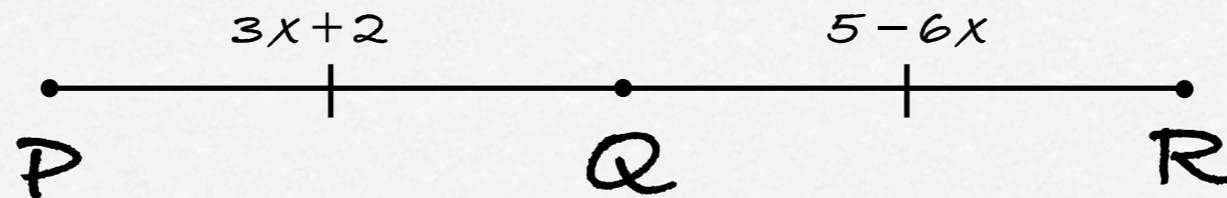
Division Property

$$x = 6$$

Symmetric Property

Solve for x using justifications

check the index
of your texts to
confirm this
postulate



$$3x+2=5-6x$$

Definition of Congruent Segments

$$9x+2=5$$

Addition Property

$$9x=3$$

Subtraction Property

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

Division Property