

Writing task 1 - A

Grade 9 chapter 11

Name: _____

Q1) State the property that justifies each statement.

- If $AB = CD$, then $CD = AB$
- $A + 10 = 20$, then $a = 10$
- If $m\angle 1 = m\angle 2$, and $m\angle 2 = m\angle 3$, then $m\angle 1 = m\angle 3$

Q2) complete the two-column proof. Drag and drop the correct answer.

Given: $\frac{5x-3}{6} = 2x + 1$

prove: $x = -\frac{9}{7}$

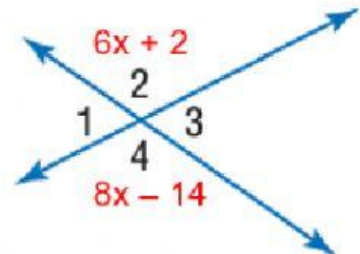
Symmetric Given multiplication subtraction distributive division subtraction substitution

statement	reason
$\frac{5x-3}{6} = 2x + 1$	
$5x - 3 = 6(2x + 1)$	Property of equality
$5x - 3 = 12x + 6$	Property of equality
$-3 = 7x + 6$	Property of equality
$-3 - 6 = 7x + 6 - 6$	Property of equality
$-9 = 7x$	Property of equality
$-\frac{9}{7} = x$	Property of equality
$x = -\frac{9}{7}$	Property of equality

Q3) complete the two-column proof. Drag and drop the correct answer.

Given: $m\angle 2 = 6x + 2$, and $m\angle 4 = 8x - 14$ Prove: $x = 8$

Given substitution definition of vertical angles subtraction
definition of congruence addition division symmetric



statement	reason
$m\angle 2 = 6x + 2$, and $m\angle 4 = 8x - 14$	
$\angle 2 \cong \angle 4$	
$m\angle 2 = m\angle 4$	
$6x + 2 = 8x - 14$	
$2 = 2x - 14$	Property of equality
$16 = 2x$	Property of equality
$8 = x$	Property of equality
$x = 8$	Property of equality