

## Writing task 1 - B

Grade 9

chapter 11

Name: \_\_\_\_\_

State the property that justifies each statement.

- a. If  $5 = x$ , then  $x = 5$
- b.  $a - 15 = 5$ , then  $a = 20$
- c. If  $m\angle 4 = m\angle 6$ , and  $m\angle 6 = m\angle 7$ , then  $m\angle 4 = m\angle 7$

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

Given:  $0 = \frac{5x+1}{2} - 8$

prove:  $x = 3$

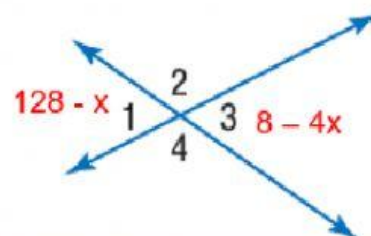
Symmetric    Given    multiplication    subtraction    division    substitution    addition

| statement                | reason                           |
|--------------------------|----------------------------------|
| $0 = \frac{5x+1}{2} - 8$ | <div></div>                      |
| $8 = \frac{5x+1}{2}$     | <div></div> Property of equality |
| $2(8) = 5x + 1$          | <div></div> Property of equality |
| $16 = 5x + 1$            | <div></div> Property of equality |
| $15 = 5x$                | <div></div> Property of equality |
| $3 = x$                  | <div></div> Property of equality |
| $x = 3$                  | <div></div> Property of equality |

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

Given:  $m\angle 1 = 128 - x$ , and  $m\angle 3 = 8 - 4x$       Prove:  $x = -40$

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



| statement                                        | reason                           |
|--------------------------------------------------|----------------------------------|
| $m\angle 1 = 128 - x$ , and $m\angle 3 = 8 - 4x$ | <div></div>                      |
| $\angle 1 \cong \angle 3$                        | <div></div>                      |
| $m\angle 1 = m\angle 3$                          | <div></div>                      |
| $128 - x = 8 - 4x$                               | <div></div>                      |
| $128 = 8 - 3x$                                   | <div></div> Property of equality |
| $120 = -3x$                                      | <div></div> Property of equality |
| $-40 = x$                                        | <div></div> Property of equality |
| $x = -40$                                        | <div></div> Property of equality |