

### G.CO.C.9: Compound Statements 1

- 1 The statement " $x$  is a multiple of 3, and  $x$  is an even integer" is true when  $x$  is equal to
  - 1) 9
  - 2) 8
  - 3) 3
  - 4) 6
  
- 2 The statement " $x > 5$  or  $x < 3$ " is *false* when  $x$  is equal to
  - 1) 1
  - 2) 2
  - 3) 7
  - 4) 4
  
- 3 Given: Two is an even integer or three is an even integer.  
Determine the truth value of this disjunction.  
Justify your answer.
  
- 4 Which statement has the same truth value as the statement "If a quadrilateral is a square, then it is a rectangle"?
  - 1) If a quadrilateral is a rectangle, then it is a square.
  - 2) If a quadrilateral is a rectangle, then it is not a square.
  - 3) If a quadrilateral is not a square, then it is not a rectangle.
  - 4) If a quadrilateral is not a rectangle, then it is not a square.
  
- 5 Which compound statement is true?
  - 1) A triangle has three sides and a quadrilateral has five sides.
  - 2) A triangle has three sides if and only if a quadrilateral has five sides.
  - 3) If a triangle has three sides, then a quadrilateral has five sides.
  - 4) A triangle has three sides or a quadrilateral has five sides.
  
- 6 Which compound statement is true?
  - 1) A square has four sides or a hexagon has eight sides.
  - 2) A square has four sides and a hexagon has eight sides.
  - 3) If a square has four sides, then a hexagon has eight sides.
  - 4) A square has four sides if and only if a hexagon has eight sides.

**G.CO.C.9: Compound Statements 1**  
**Answer Section**

1 ANS: 4 REF: 081101ge

2 ANS: 4 REF: 081505ge

3 ANS:

True. The first statement is true and the second statement is false. In a disjunction, if either statement is true, the disjunction is true.

REF: 060933ge

4 ANS: 4 REF: 061423ge

5 ANS: 4 REF: 011118ge

6 ANS: 1 REF: 081421ge