

**G.G.25: Compound Statements 5: Know and apply the conditions under which a compound statement (conjunction, disjunction, conditional, biconditional) is true**

- 1 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.
  
- 2 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.
  
- 3 If  $x = 3$ , which statement is false?
  - 1)  $x$  is prime and  $x$  is odd.
  - 2)  $x$  is odd or  $x$  is even.
  - 3)  $x$  is not prime and  $x$  is odd.
  - 4)  $x$  is odd and  $2x$  is even.

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**Answer Section**

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| 1 | ANS: 4 | REF: 011118ge |
| 2 | ANS: 1 | REF: 081421ge |
| 3 | ANS: 3 | REF: 060622a  |