

### G.CO.C.9: Negations

- 1 What is the negation of the statement “The Sun is shining”?
  - 1) It is cloudy.
  - 2) It is daytime.
  - 3) It is not raining.
  - 4) The Sun is not shining.
  
- 2 What is the negation of the statement “Squares are parallelograms”?
  - 1) Parallelograms are squares.
  - 2) Parallelograms are not squares.
  - 3) It is not the case that squares are parallelograms.
  - 4) It is not the case that parallelograms are squares.
  
- 3 What is the negation of the statement “I am not going to eat ice cream”?
  - 1) I like ice cream.
  - 2) I am going to eat ice cream.
  - 3) If I eat ice cream, then I like ice cream.
  - 4) If I don’t like ice cream, then I don’t eat ice cream.
  
- 4 A student wrote the sentence “4 is an odd integer.” What is the negation of this sentence and the truth value of the negation?
  - 1) 3 is an odd integer; true
  - 2) 4 is not an odd integer; true
  - 3) 4 is not an even integer; false
  - 4) 4 is an even integer; false
  
- 5 Which statement is the negation of “Two is a prime number” and what is the truth value of the negation?
  - 1) Two is not a prime number; false
  - 2) Two is not a prime number; true
  - 3) A prime number is two; false
  - 4) A prime number is two; true
  
- 6 Given the statement: One is a prime number. What is the negation and the truth value of the negation?
  - 1) One is not a prime number; true
  - 2) One is not a prime number; false
  - 3) One is a composite number; true
  - 4) One is a composite number; false
  
- 7 What are the truth values of the statement “Two is prime” and its negation?
  - 1) The statement is false and its negation is true.
  - 2) The statement is false and its negation is false.
  - 3) The statement is true and its negation is true.
  - 4) The statement is true and its negation is false.
  
- 8 What are the truth values of the statement "Opposite angles of a trapezoid are always congruent" and its negation?
  - 1) The statement is true and its negation is true.
  - 2) The statement is true and its negation is false.
  - 3) The statement is false and its negation is true.
  - 4) The statement is false and its negation is false.
  
- 9 Given the true statement, "The medians of a triangle are concurrent," write the negation of the statement and give the truth value for the negation.
  
- 10 Write the negation of the statement “2 is a prime number,” and determine the truth value of the negation.

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**Answer Section**

1 ANS: 4 REF: fall0802ge

2 ANS: 3 REF: 080924ge

3 ANS: 2 REF: 061002ge

4 ANS: 2 REF: 061202ge

5 ANS: 1 REF: 011213ge

6 ANS: 1 REF: 081303ge

7 ANS: 4 REF: 061412ge

8 ANS: 3 REF: 011506ge

9 ANS:

The medians of a triangle are not concurrent. False.

REF: 061129ge

10 ANS:

2 is not a prime number, false.

REF: 081229ge