

NAME: _____

G.G.26: Identify and write the inverse, converse, and contrapositive of a given conditional statement and note the logical equivalences

1. 010415a, P.I. G.G.26

Which statement is the converse of "If the sum of two angles is 180° , then the angles are supplementary"?

- [A] If two angles are supplementary, then their sum is 180° .
- [B] If the sum of two angles is not 180° , then the angles are supplementary.
- [C] If the sum of two angles is not 180° , then the angles are not supplementary.
- [D] If two angles are not supplementary, then their sum is not 180° .

2. 080813a, P.I. G.G.26

What is the converse of the statement "If $a^2 + b^2 = c^2$, then $\triangle ABC$ is a right triangle"?

- [A] $a^2 + b^2 = c^2$ if, and only if, $\triangle ABC$ is a right triangle.
- [B] If $a^2 + b^2 = c^2$, then $\triangle ABC$ is not a right triangle.
- [C] If $\triangle ABC$ is not a right triangle, then $a^2 + b^2 = c^2$.
- [D] If $\triangle ABC$ is a right triangle, then $a^2 + b^2 = c^2$.

3. 080014a, P.I. G.G.26

What is the converse of the statement "If it is sunny, I will go swimming"?

- [A] If I do not go swimming, then it is not sunny.
- [B] If it is not sunny, I will not go swimming.
- [C] I will go swimming if and only if it is sunny.
- [D] If I go swimming, it is sunny.

4. 080116a, P.I. G.G.26

Which statement is the converse of "If it is a 300 ZX, then it is a car"?

- [A] If it is a car, then it is a 300 ZX.
- [B] If it is not a 300 ZX, then it is not a car.
- [C] If it is a car, then it is not a 300 ZX.
- [D] If it is not a car, then it is not a 300 ZX.

G.G.26: Identify and write the inverse, converse, and contrapositive of a given conditional statement and note the logical equivalences

[1] A

[2] D

[3] D

[4] A

[5] C

[6] A

[7] D

[8] A

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5. 060816a, P.I. G.G.26

What is the converse of the statement "If x is an even integer, then $(x + 1)$ is an odd integer"?

[A] If $(x + 1)$ is not an odd integer, then x is not an even integer.

[B] x is not an even integer if and only if $(x + 1)$ is not an odd integer.

[C] If $(x + 1)$ is an odd integer, then x is an even integer.

[D] x is an even integer if and only if $(x + 1)$ is an odd integer.

6. 060520a, P.I. G.G.26

What is the converse of the statement "If it is Sunday, then I do not go to school"?

[A] If I do not go to school, then it is Sunday.

[B] If it is not Sunday, then I do not go to school.

[C] If it is not Sunday, then I go to school.

[D] If I go to school, then it is not Sunday.

7. 080521a, P.I. G.G.26

What is the converse of the statement "If Alicia goes to Albany, then Ben goes to Buffalo"?

[A] Alicia goes to Albany if and only if Ben goes to Buffalo.

[B] If Alicia does not go to Albany, then Ben does not go to Buffalo.

[C] If Ben does not go to Buffalo, then Alicia does not go to Albany.

[D] If Ben goes to Buffalo, then Alicia goes to Albany.

8. 060717a, P.I. G.G.26

What is the converse of the statement "If the Sun rises in the east, then it sets in the west"?

[A] If the Sun sets in the west, then it rises in the east.

[B] If the Sun does not rise in the east, then it does not set in the west.

[C] If the Sun rises in the west, then it sets in the east.

[D] If the Sun does not set in the west, then it does not rise in the east.