Geometry Practice G.CO.C.9: Converse www.jmap.org

- 1. Find the converse of "If it is a house, then it is a dwelling."
 - [A] If it is a house, then it is not a dwelling.
 - [B] If it is a dwelling, then it is a house.
 - [C] If it is a dwelling, then it is not a house.
 - [D] If it is not a house, then it is not a dwelling.
- 2. Find the converse of "If it is a dog, then it is a pet."
 - [A] If it is a pet, then it is a dog.
 - [B] If it is a pet, then it is not a dog.
 - [C] If it is a dog, then it is not a pet.
 - [D] If it is not a dog, then it is not a pet.
- 3. Find the converse of "If it is a rose, then it is a flower."
 - [A] If it is a rose, then it is not a flower.
 - [B] If it is a flower, then it is a rose.
 - [C] If it is not a rose, then it is not a flower.
 - [D] If it is a flower, then it is not a rose.
- 4. Give the converse of "If it is a pigeon, then it is a bird."

- NAME:
- 5. Give the converse of "If it is a box, then it is a container."
- 6. State Theorem 12-4 as a conditional: two segments tangent to a circle from a point outside the circle are congruent. Then state its converse.
- 7. Write as a conditional: two inscribed angles that intercept the same arc are congruent. Then write its converse. Do you think the converse is true? Give an example to justify your answer.
- 8. True or False: Even if a conditional statement is true, its converse may be false.
- 9. True or False: If a conditional statement is true, its converse is true also.
- 10. True or False: The phrase "if and only if" means both the conditional and its converse are true.

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- [1] B
- [2] A
- [3] B
- [4] If it is a bird, then it is a pigeon.
- [5] If it is a container, then it is a box.

If two segments are tangent to a circle from a point outside the circle, then they are congruent. If two segments drawn from a point outside the circle are congruent, then

[6] they are tangent to the circle.

If two inscribed angles intercept the same arc, then they are congruent. Converse: if two inscribed angles are congruent, then they intercept the same arc. The converse is not

- [7] true; check students' examples.
- [8] true
- [9] false
- [10] true