

If the given statement is not in if-then form, rewrite it. Identify the hypothesis and the conclusion. Then write the converse, inverse, and contrapositive.

1. *If a figure is a hexagon, then it has six sides.*

- a. Converse: _____
- b. Inverse: _____
- c. Contrapositive: _____

2. *All triangles are polygons.*

- a. If-Then Conditional statement: _____
- b. Hypothesis: _____
- c. Conclusion: _____
- d. Converse: _____
- e. Inverse: _____
- f. Contrapositive: _____

Determine the truth-value for the following statements. If a statement is false, give a counter example.

- 4. If you are a freshman, then you are enrolled in Algebra I.
- 5. If a number is even, then it is divisible by 2.
- 6. If your first name is Mike, then your last name is Raffone.
- 7. If the figure is a quadrilateral, then its angles measure 90°.
- 8. If a figure has 8 congruent sides, then that figure is a octagon.

Find a pattern for each sequence. Use the pattern to find the next two terms.

9. 2, 6, 10, 14...

10. 100, 10, 1, 0.1...

★ Bonus!

11. A, B, E, C, I, D...

Use the sequence and inductive reasoning to make a conjecture:



12. What pattern is in the 16th figure?

13. What is the shape of the 25th figure?