

2-3 Standardized Test Prep

Biconditionals and Definitions

Multiple Choice

For Exercises 1–3, choose the correct letter.

- Which statement is a good definition of a rectangle?
 - A rectangle is a shape with four sides.
 - A rectangle is a shape with two pairs of parallel sides.
 - A rectangle is a quadrilateral with four congruent angles.
 - A rectangle is a parallelogram with four congruent sides.
- Conditional: If a triangle is scalene, then the triangle has no congruent sides. Which statement shows the conditional written as a true biconditional?
 - A triangle is scalene if and only if it has no congruent sides.
 - If a triangle has no congruent sides, then the triangle is scalene.
 - If a triangle has some congruent sides, then the triangle is not scalene.
 - A triangle is equilateral if and only if it is not scalene.
- Biconditional: A triangle is equilateral if and only if the triangle has three congruent angles. Which choice shows the two conditionals that make up the biconditional?
 - If a triangle has three sides, then it is equilateral. If the triangle is equilateral, then it has three sides.
 - If a triangle is equilateral, then it has three congruent angles. If a triangle has three congruent angles, then it is equilateral.
 - If a triangle is scalene, then the triangle is not equilateral. If a triangle is equilateral, then the triangle is not scalene.
 - An equilateral triangle has symmetry. If a triangle has symmetry, it is equilateral.

Short Response

- Write this definition as a true biconditional two different ways.
Definition: A rhombus is a parallelogram with four congruent sides.