Name: _____

Exterior Angles of Triangles

Solve each problem.

Learn: An exterior angle equals the sum of the two far-away inside angles.

Example: The remote interior angles of a triangle are 2x° and (3x + 10)°. The exterior angle is 85°. Find x.

Answer: x = 15

1. The remote interior angles of a triangle are 4x° and (2x + 10)°. The exterior angle is 118°. Find x.

   Answer: _____

2. Two interior angles of a triangle are 29° and 45°. What is the exterior angle at the third vertex?

   Answer: _____

3. Two interior angles of a triangle are 57° and 46°. What is the exterior angle at the third vertex?

   Answer: _____

4. Two interior angles of a triangle are 52° and 75°. What is the exterior angle at the third vertex?

   Answer: _____

5. Two interior angles of a triangle are 20° and 57°. What is the exterior angle at the third vertex?

   Answer: _____

6. The remote interior angles of a triangle are 3x° and (3x + 10)°. The exterior angle is 124°. Find x.

   Answer: _____

7. Two interior angles of a triangle are 36° and 52°. What is the exterior angle at the third vertex?

   Answer: _____

8. Two interior angles of a triangle are 48° and 30°. What is the exterior angle at the third vertex?

   Answer: _____

Name: **ANSWER KEY**

Exterior Angles of Triangles

Solve each problem.

Learn: An exterior angle equals the sum of the two far-away inside angles.

Example: The remote interior angles of a triangle are 2x° and (3x + 10)°. The exterior angle is 85°. Find x.

Answer: x = 15

1. The remote interior angles of a triangle are 4x° and (2x + 10)°. The exterior angle is 118°. Find x.

   Answer: x = 18

2. Two interior angles of a triangle are 29° and 45°. What is the exterior angle at the third vertex?

   Answer: 74°

3. Two interior angles of a triangle are 57° and 46°. What is the exterior angle at the third vertex?

   Answer: 103°

4. Two interior angles of a triangle are 52° and 75°. What is the exterior angle at the third vertex?

   Answer: 127°

5. Two interior angles of a triangle are 20° and 57°. What is the exterior angle at the third vertex?

   Answer: 77°

6. The remote interior angles of a triangle are 3x° and (3x + 10)°. The exterior angle is 124°. Find x.

   Answer: x = 19

7. Two interior angles of a triangle are 36° and 52°. What is the exterior angle at the third vertex?

   Answer: 88°

8. Two interior angles of a triangle are 48° and 30°. What is the exterior angle at the third vertex?

   Answer: 78°