Problem 4

Use the converse of the Pythagorean Theorem to show that a triangle whose sides are of lengths 11, 60, and 61 is a right triangle.

Solution

Check to see that the Pythagorean theorem is satisfied.

$$11^2 + 60^2 \overset{?}{=} 61^2$$

$$3721 = 3721$$

Since the Pythagorean theorem only holds for a right triangle, a triangle with side lengths 11, 60, and 61 is a right triangle.