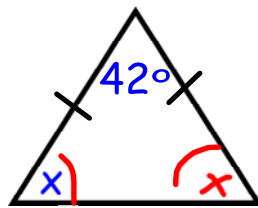# Using Isosceles Triangle Theorem and its converse.

Examples

1. Find x.

Solution:

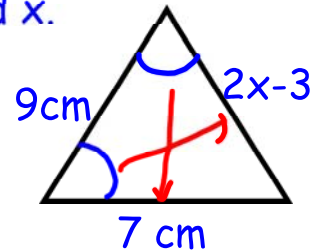The two base angles are congruent since the sides are marked congruent.

$$x + x + 42 = 180$$
$$2x + 42 = 180$$
$$2x = 138$$
$$x = 69$$

2. Find x.

Solution:

The two sides across from the base angles are congruent since the base angles are congruent.

$$2x - 3 = 7$$
$$2x = 10$$
$$x = 5$$