EX: Find the value of x to the nearest tenth.
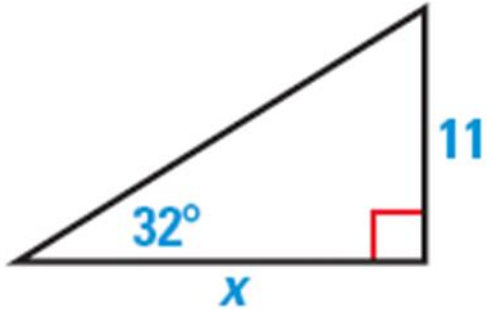
EX: Find the height of the lamppost to the nearest tenth.

EX:

If $a = 5$ and $m\angle B = 11$, find the number of square units in the area of $\triangle ABC$ to the nearest tenth.

Use this diagram for Exercises 1- 4.
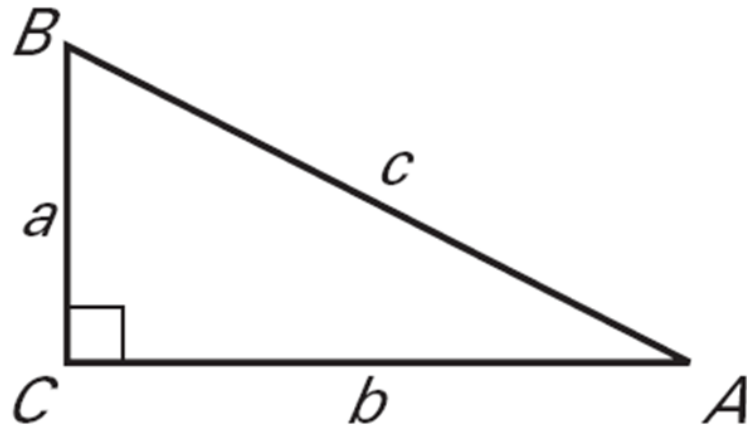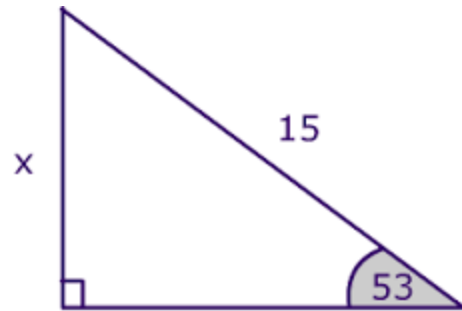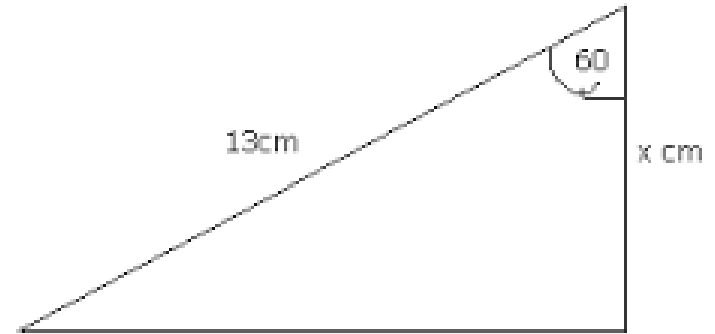
EX: Find the value of x to the nearest tenth.

15

x
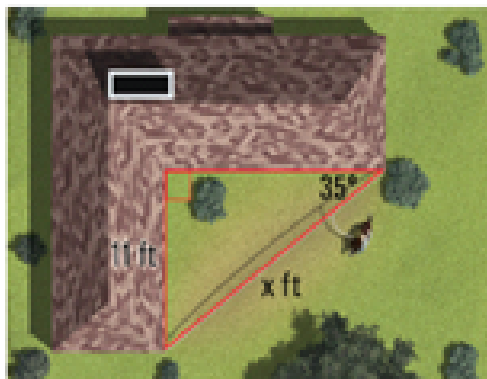
53

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60

13cm

x cm

EX:

EXAMPLE 3 Use a trigonometric ratio to find a hypotenuse

DOG RUN

You want to string cable to make a dog run from two corners of a building, as shown in the diagram. Write and solve a proportion using a trigonometric ratio to approximate the length of cable you will need.

EX:

EXAMPLE 5   Find leg lengths using an angle of elevation

SKATEBOARD RAMP

You want to build a skateboard ramp with a length of 14 feet and an angle of elevation of $26°$. You need to find the height and length of the base of the ramp.