1. In $\triangle ABC$ $\angle B = 90°$, $\angle A = 37°$, and
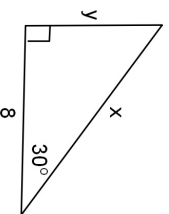AB = 20.

Find the measures of the other
angle and the other two sides.

$\angle C =$ 　　　　AC =
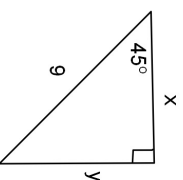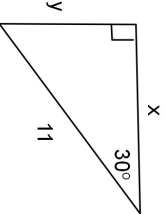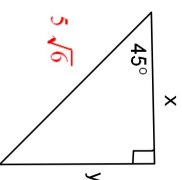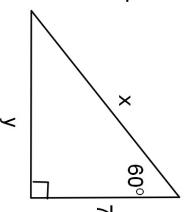
BC=

5.

6.

7.

8.

2. The sides of a right triangle are whole numbers.
Find the third side of the right triangle if two sides are:
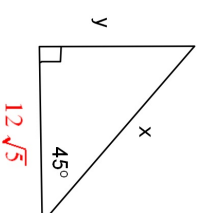
88, 137, _____

For 3 to 8 find the exact value of each variable in simplified
radical form. Rationalize all denominators.

3.

4.

9. The engine on a boat has died and the captain has radioed
for help. The Coast Guard helicopter sees the boat with an angle
of depression of 51°. The line-of-sight distance from the helicopter
to the boat it 5000 ft. How high above the boat is the helicopter?

10. A mother climbs a vertical ladder to get on a large slide at
an amusement park. After the mother goes down the slide she
sees her child at the top of the slide with an angle of elevation
of 35°.

a) If the mother is 80 feet from the ladder how long is the
slide?

b) How high is the top of the slide from the ground?