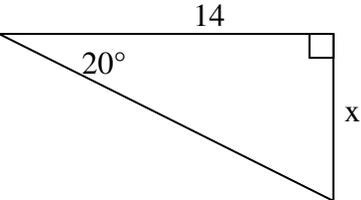
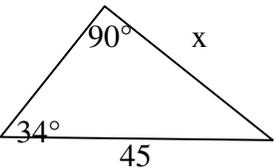
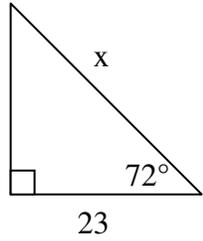
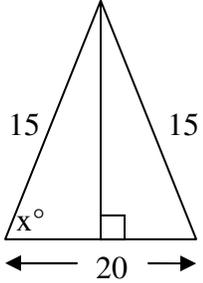
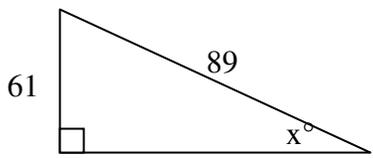
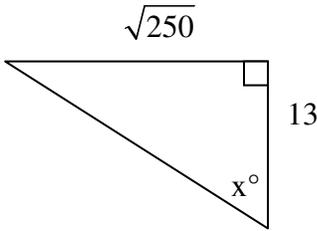


Practice Worksheet for Lessons 8-5 and 8-6

Name:

Mailbox #:

Find the value of x to the nearest tenth. You must show how you set up the equation to get credit for these problems.

<p>1)</p>  <p>A right-angled triangle with a right angle symbol at the top-right vertex. The top horizontal leg is labeled 14. The angle at the top-left vertex is labeled 20°. The vertical leg on the right is labeled x.</p>	<p>2)</p>  <p>A right-angled triangle with a right angle symbol at the top vertex. The angle at the bottom-left vertex is labeled 34°. The bottom horizontal leg is labeled 45. The right leg is labeled x.</p>
<p>3)</p>  <p>A right-angled triangle with a right angle symbol at the bottom-left vertex. The angle at the bottom-right vertex is labeled 72°. The bottom horizontal leg is labeled 23. The hypotenuse is labeled x.</p>	<p>4)</p>  <p>An isosceles triangle with two equal legs of length 15. The base is labeled 20. A vertical line segment from the top vertex to the base is perpendicular to the base, indicated by a right angle symbol. The angle at the bottom-left vertex is labeled x°.</p>
<p>5)</p>  <p>A right-angled triangle with a right angle symbol at the bottom-left vertex. The left vertical leg is labeled 61. The hypotenuse is labeled 89. The angle at the bottom-right vertex is labeled x°.</p>	<p>6)</p>  <p>A right-angled triangle with a right angle symbol at the top-right vertex. The top horizontal leg is labeled $\sqrt{250}$. The vertical leg on the right is labeled 13. The angle at the bottom-right vertex is labeled x°.</p>

7) The tallest fountain in the world is located at Fountain Hills, Arizona. If weather conditions are favorable, the water column can reach 625 feet. Suppose Alfonso visits the fountain on a perfect day and his eyes are 5 feet from the ground.

A) If Alfonso stands 40 ft from the fountain, find the angle of elevation for his line of sight to the top of the spray.

B) If Alfonso moves so that the angle of elevation for his line of sight to the top of the spray is 75° , how far is he from the base of the fountain?

8) A golfer is standing on a tee with the green in the valley below. If the tee is 43 yards higher than the green and the angle of depression from the tee to the hole is 14° , find the distance from the green to the hole.

9) The Observation Deck of the John Hancock Center is on the 94th floor, which is 1030 feet above the ground. The Skydeck of the Sears Tower is on the 103rd floor, which is 1335 feet above the ground. The John Hancock center is 1.7 miles from the Sears Tower. What is the angle of elevation from the Observation Deck to the Skydeck.