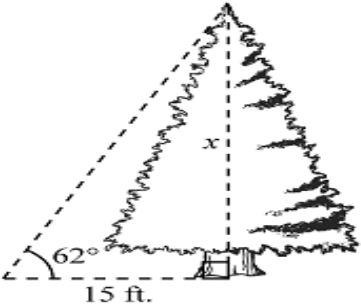
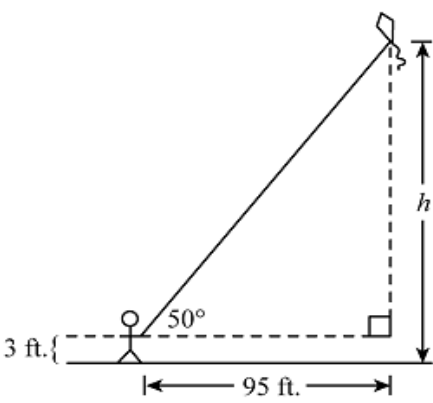
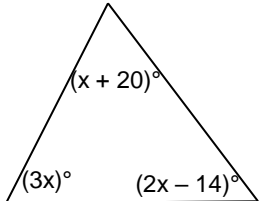
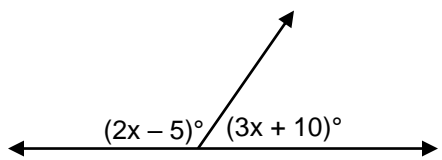


NAME _____ DATE _____ PER. _____

APPLICATIONS OF TRIG RATIOS

Solve – be sure to draw and label picture first.

<p>_____ 1.</p>	<p>A forest ranger in a 90-foot observation tower sees a fire. The angle of depression to the fire is 7°. What is the horizontal distance between the tower and the fire? Round to the nearest foot.</p>
<p>_____ 2.</p>	<p>When the angle of elevation to the sun is 37°, a flagpole casts a shadow that is 24.2 ft long. What is the height of the flagpole to the nearest foot?</p>
<p>_____ 3.</p>	<p>To the nearest tenth of a foot, how many feet tall is the tree illustrated in the diagram below?</p>  <p>The diagram shows a tree with a height labeled x. A dashed line represents the line of sight from an observation point to the top of the tree. The horizontal distance from the base of the tree to the observation point is labeled 15 ft. The angle of elevation from the observation point to the top of the tree is labeled 62°.</p>

<p>_____4.</p>	<p>Joe is holding his kite string 3 feet above the ground, as shown in the accompanying diagram. The distance between his hand and a point directly under the kite is 95 feet.</p>  <p>The angle of elevation to the kite is 50°. To the nearest foot, h, how many feet above the ground is the kite?</p>
<p>_____5.</p>	<p>Find the value of 'x'.</p> 
<p>_____6.</p>	<p>Find the value of 'x'.</p> 
<p>_____7.</p>	<p>Find the value of 'x'.</p> 