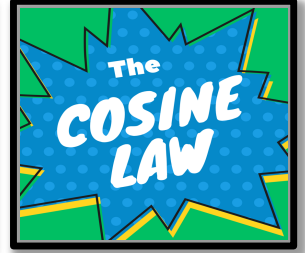
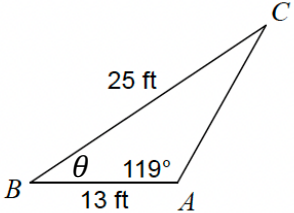
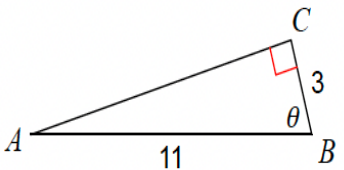
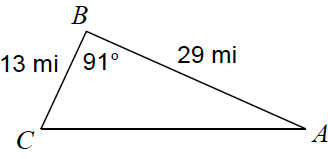
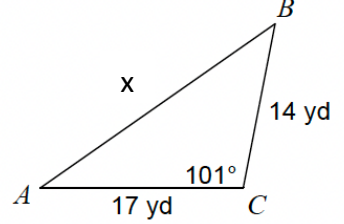
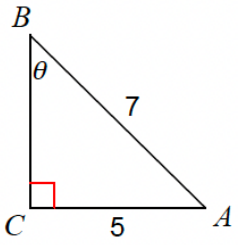
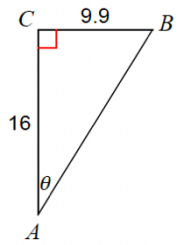
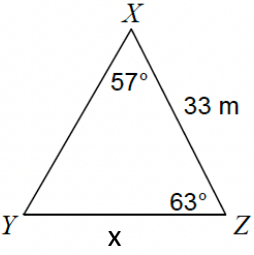
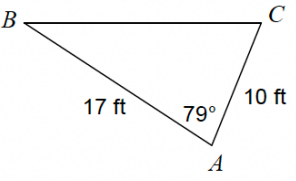


WHO CAN HELP?



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<p>3.</p> <p>Find $m\angle C$</p> 	<ul style="list-style-type: none"> <input type="radio"/> SOH <input type="radio"/> CAH <input type="radio"/> TOA <input type="radio"/> Sine Law <input type="radio"/> Cosine Law 	<p>4.</p> 	<ul style="list-style-type: none"> <input type="radio"/> SOH <input type="radio"/> CAH <input type="radio"/> TOA <input type="radio"/> Sine Law <input type="radio"/> Cosine Law
<p>5.</p> 	<ul style="list-style-type: none"> <input type="radio"/> SOH <input type="radio"/> CAH <input type="radio"/> TOA <input type="radio"/> Sine Law <input type="radio"/> Cosine Law 	<p>6.</p> 	<ul style="list-style-type: none"> <input type="radio"/> SOH <input type="radio"/> CAH <input type="radio"/> TOA <input type="radio"/> Sine Law <input type="radio"/> Cosine Law
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Trigonometry Word Problems

Name: _____

Drawing a triangle, label the corners, fill in the information, and then find what you need!

1. The angle between two equal sides of an isosceles triangle is 52° . Each of the equal sides is 18cm long. Solve the triangle.

2. A radar operator on a ship discovers a large sunken vessel lying flat on the ocean floor, 200m directly below the ship. The radar operator measures the angles of depression to the front and back of the sunken ship to be 56° and 62° . How long is the sunken ship?

3. The base of a roof is 12.8m wide. The rafters (meaning the slants of the roof) form angles of 48° and 44° with the base of the roof. How long, to the nearest tenth of a metre, is each rafter?

4. A flagpole stands on top of a building that is 27m high. From a point on the ground some distance away, the angle of elevation to the top of the flagpole is 43° . The angle of elevation to the bottom of the flagpole is 32° .

- a) How far is the point on the ground from the base of the building?
- b) How tall is the flagpole?

5. Charles and Agnes are 520m apart. As Brenda flies overhead in an airplane, they measure the angle of elevation of the airplane. Charles measures the angle of elevation to be 63° and Agnes measures it to be 36° . What is the altitude of the plane? (Assume airplane is in between Charles and Agnes.)

6. Two support wires are fastened to the top of a satellite dish tower from points A and B on the ground, on either side of the tower. One wire is 18m long and the other is 12m long. The angle of elevation of the longer wire to the top of the tower is 38° . How tall is the satellite dish and how far apart are points A and B?

7. Ryan is in a police helicopter 400m directly above a highway. When he looks west, the angle of depression to a car accident is 65° . When he looks east, the angle of depression to the approaching ambulance is 30° . How far away is the ambulance from the scene of the accident?

8. In a parallelogram, two adjacent sides measure 10cm and 12cm. The shorter diagonal is 15cm. Determine, to the nearest degree, the measures of all four angles in the parallelogram.