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| SINE LAW | COSINE LAW |
| Draw and label a triangle and write the formula | Draw and label a triangle and write the formula. Rewrite the formula for the other sides |
| When solving for a side, what information do you need to know? | When solving for a side, what information do you need to know? |
| When solving for an angle, what information do you need to know? | When solving for an angle, what information do you need to know? |

Answer the following word problems:

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| A radio tower is supported by two wires on opposite sides. On the ground, the ends of the wire are 280 m apart. One wire makes a 50° angle with the ground. The other makes a 56° angle with the ground. Draw a diagram of the situation. Then, determine the length of each wire to the nearest metre. Show your work. | The pendulum of a grandfather clock is 85.0 cm long. When the pendulum swings from one side to the other side, it travels a horizontal distance of 10.5 cm. Draw a diagram. Determine the angle through which the pendulum swings. Round your answer to the nearest tenth of a degree. |
| An airplane is flying directly toward two forest fires. From the airplane, the angle of depression to one fire is 43° and 20° to the other fire. The airplane is flying at an altitude of 2500 ft. What is the distance between the two fires to the nearest foot? Show your work. | A boat delivered supplies to a remote camp by sailing 200 km in the direction N47E. While at the camp, the driver receives a radio message to pick up a passenger at a village. The village is 105 km S21E from the camp. The driver collects the passenger and sails back to his starting point. What is the total distance that the driver sailed, to the nearest kilometer? |