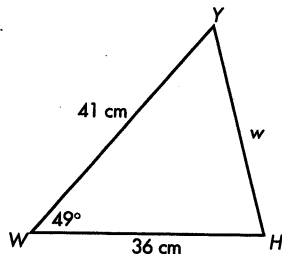
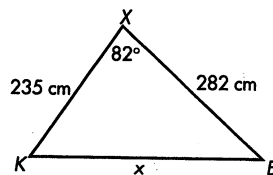


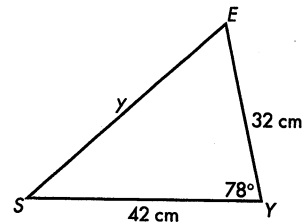
1. $w = -?-$



2. $x = -?-$

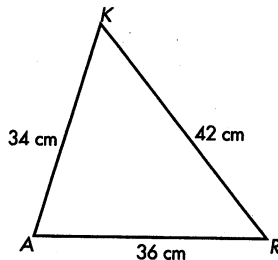


3. $y = -?-$

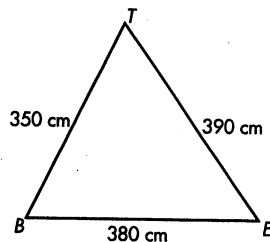


Find the measure of each indicated angle to the nearest degree.

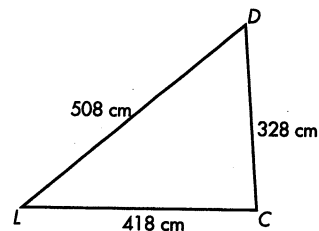
4. $m\angle A = -?-$



5. $m\angle B = -?-$



6. $m\angle C = -?-$



- 7.* To the nearest degree, find the measure of the smallest angle in a triangle whose side lengths are 4 m, 7 m, and 8 m.
8. Two sides of a parallelogram measure 15 cm and 20 cm, and one of the diagonals measures 30 cm. What are the measures of the angles of the parallelogram to the nearest degree?
9. If two 24-centimeter radii of a circle form a central angle measuring 126° , what is the length of the chord connecting the two radii to the nearest tenth of a centimeter?
10. A cargo company needs to load truck trailers into ship cargo containers. The trucks must drive up a ramp to a loading platform 30 ft off the ground, but they have difficulty driving up a ramp at an angle steeper than 20° . How long does the ramp need to be?
11. Chip Woodman, the foreman at the paper plant, must estimate the volume of a conical woodchip pile. The distance from the tip of the cone to the edge of the base (the slant height) is 304 feet and forms a 54° angle with the ground. What is the height of the cone to the nearest foot? What is the area of the base of the cone to the nearest thousand square feet? What is the volume of the cone to the nearest hundred thousand cubic feet?
12. A lighthouse 55 meters above sea level spots a distress signal from a sailboat. The angle of depression to the sailboat measures 21° . To the nearest meter, how far away is the sailboat from the base of the lighthouse?

