DIRECTIONS: Give lengths to the nearest tenth of a unit and angle measures to the nearest degree.

1. How tall is the building? 140.5 m

2. How far up will the ladder reach?
11.3 m

3. How high above the ground is the kite? 148.2 m

4. How far from the building is the car? 22.5 m

5. How wide is the river? 85.1 m

6. A rock dropped from the top of the Leaning Tower of Pisa falls to a point 14 feet from its base. If the tower is 182 feet tall, at what angle does it lean at the ground? $86^{\circ}$

7. A mine shaft is 300 m deep and makes an angle of $65^{\circ}$ with the horizontal ground. How long is the shaft? 331.0 m
8. A 90-foot escalator rises 28 feet vertically. What is the angle that the escalator makes with the floor? $18^{\circ}$

9. Sonar on a destroyer detects a submarine at a depth of 200 m . If the angle is $31^{\circ}$, how far apart are the two vessels? 388.3 m

10. A ladder is mounted on a fire truck, six feet above the ground. If the maximum length of the ladder is 120 feet and the maximum angle to which it can be raised is $75^{\circ}$, how high up will it reach?
121.9 ft (remember that the ladder doesn't start on the ground)

