Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A ramp to a building has a height of 4 feet and the angle of elevation is 33o. How long is the ramp?
2. An equilateral triangle has a side length of 13 feet. Find the height of the triangle.
3. If a kite is 40 feet off the ground and the string holding the kite is 42 feet long, what is the angle of elevation to the kite?
4. A 15 foot ladder is leaned against a house. If the base of the ladder is 4 feet from the house, what angle does the ladder make with the ground?
5. In a large theater, the stairs have an angle of elevation of 27o. If the theater is 50 feet long, how tall is the highest seat?
6. The area of a square is 16 in2. Find the length of the diagonal.