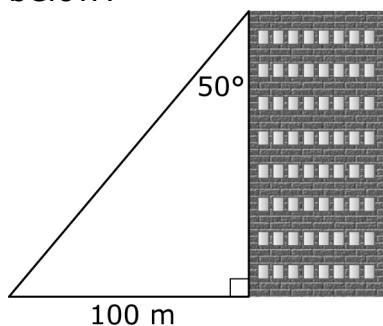


## Chapter 7 Test

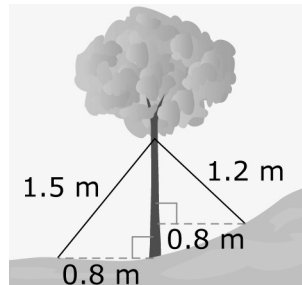
For #1 to #4, select the best answer.

1. What is the angle of elevation of a cargo ramp that reaches a loading bay door 2 ft off the ground and extends 10 ft horizontally from the door?  
**A**  $2^\circ$    **B**  $11^\circ$    **C**  $18^\circ$    **D**  $78^\circ$
2. During the demolition of a building, a support cable must be anchored to the floor 40 m from the base of a wall and attached 30 m up the side of wall. What is the angle of elevation of the cable?  
**A**  $37^\circ$    **B**  $40^\circ$   
**C**  $46^\circ$    **D**  $55^\circ$
3. How long is a ladder whose base is 3 ft from a wall and makes an  $80^\circ$  angle with the ground?  
**A** 10 ft   **B** 12 ft  
**C** 14 ft   **D** 17 ft
4. How tall is the building pictured below?



- A** 65 m   **B** 84 m  
**C** 130 m   **D** 183 m

5. A conveyor is being used to move shingles to a rooftop. The house is 8 m tall. The base of the conveyor is 15 m horizontally from the base of the house.
  - a) Determine the angle of elevation needed to clear the rooftop of the house, to the nearest degree.
  - b) Determine how long the conveyor should be, to the nearest metre.
6. A 1.5-m cable and a 1.2-m cable are staked in uneven ground 0.8 m from the tree. The cables are connected to the trunk of the tree.



- a) Estimate the angle of elevation of each cable.
- b) Calculate the angle of elevation of each cable, to the nearest degree.
- c) How close were your estimates to your calculations? Why do you think this is?

