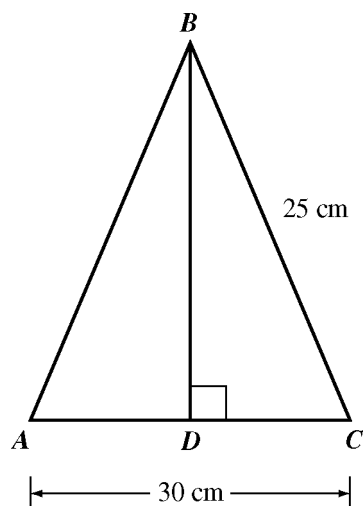


Name: _____

Date: _____

- 1 In the figure below, D is the midpoint of \overline{AC} , and \overline{BD} is perpendicular to \overline{AC} .

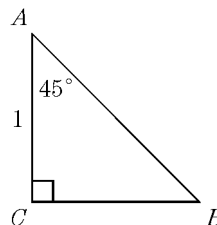


What is the length of \overline{BD} ?

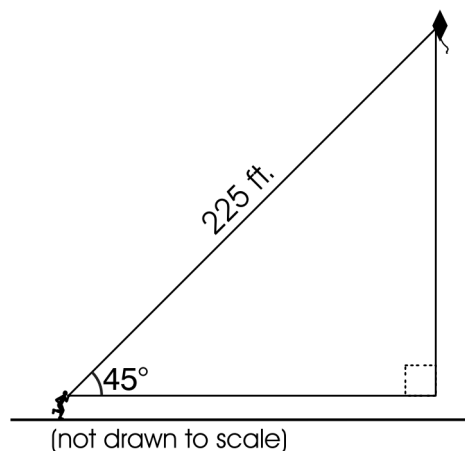
- A. 15 centimeters B. 16 centimeters
C. 18 centimeters D. 20 centimeters
- 2 A rectangle has a diagonal that measures 10 centimeters and a length that is 2 centimeters longer than the width. What is the width of the rectangle in centimeters?

A. 5 B. 6 C. 8 D. 12

- 3 In the accompanying diagram of right triangle ABC , $m\angle C = 90$, $m\angle A = 45$, and $AC = 1$. Find, in radical form, the length of \overline{AB} .



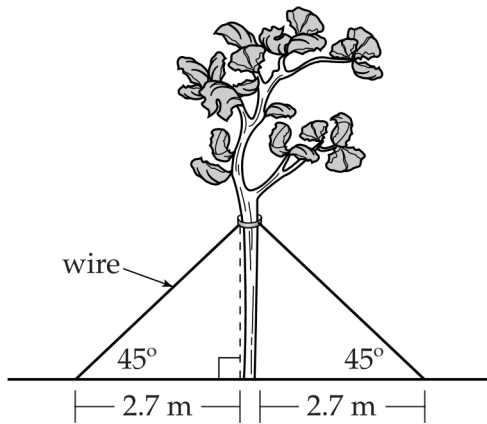
- 4 Use the diagram below to answer the following question(s).



It is believed that the best angle to fly a kite is . If you fly a kite at this angle and let out 225 feet of string, *approximately* how high above the ground will the kite be?

- A. 250 feet B. 200 feet
C. 150 feet D. 100 feet

- 5 Two wires support a young tree as shown below.



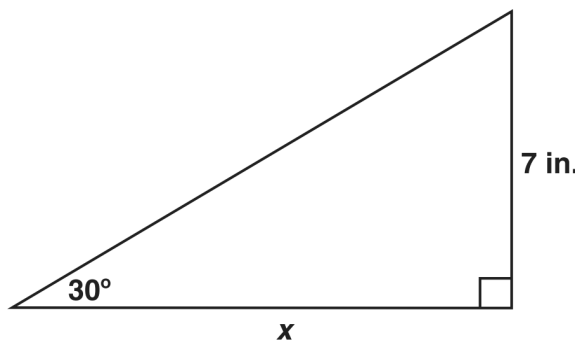
Note: The figure is not drawn to scale.

What is the length, in meters, of each wire?

- 6 The area of a square is 36 square feet. Which of the following measures is closest to the length of its diagonal?

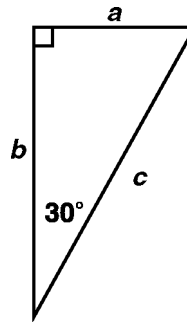
A. 8.1 ft. B. 8.3 ft. C. 8.5 ft. D. 8.7 ft.

- 7 What is the value of x , in inches?



A. $7\sqrt{3}$ B. 14 C. $14\sqrt{3}$ D. 21

- 8 If $a = 3\sqrt{3}$ in the right triangle below, what is the value of b ?

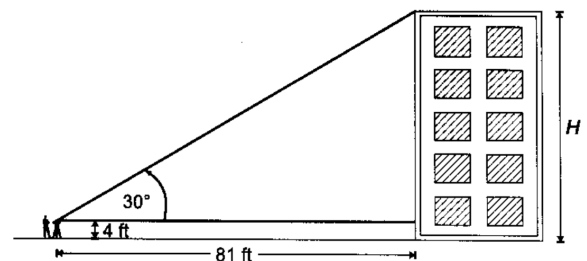


A. 9 B. $6\sqrt{3}$ C. $12\sqrt{3}$ D. 18

- 9 A 20 meter long cable is used to support a telephone pole, holding it perpendicular to the ground. If the cable forms a 60° angle with the ground, how high up the pole should the cable be attached?

A. 10 meters B. $10\sqrt{3}$ meters
C. $20\sqrt{2}$ meters D. $20\sqrt{3}$ meters

- 10 In Dewey Beach, building codes restrict the height of building to 50 feet. Study the diagram; then determine by how much the building shown is above or below the code restriction.



M2: Unit 5 Quiz 11/9/2017

- | | |
|---------|---|
| 1. | |
| Answer: | D |
| 2. | |
| Answer: | B |
| 3. | |
| Answer: | $\sqrt{2}$ |
| 4. | |
| Answer: | C |
| 5. | |
| Answer: | |
| 6. | |
| Answer: | C |
| 7. | |
| Answer: | A |
| 8. | |
| Answer: | A |
| 9. | |
| Answer: | B |
| 10. | |
| Answer: | The building approximately 50.77 feet tall
or approximately 0.77 feet over code.
(This answer might even be reported as
9 inches over code or between 8 and
10 inches over code.) Range .66–.84 feet
earns 2 points. |