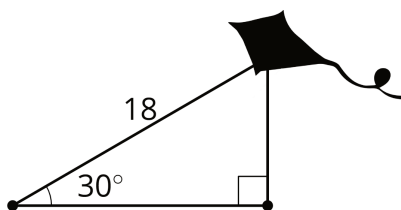# Lesson 5 Practice Problems

1. A triangle has sides with lengths 8, 15, and 17.

    a. Verify this is a Pythagorean triple.

    b. Approximate the acute angles in this triangle.

2. Kiran is flying a kite. He gets tired, so he stakes the kite into the ground. The kite is on a string that is 18 feet long and makes a 30 degree angle with the ground. How high is the kite?

3. Triangle ABC has a right angle at C. Select **all** measurements which would mean it has a hypotenuse with a length of 10 units.
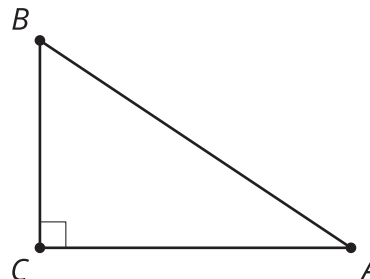
    A. Angle A is 20 degrees, BC is 2 units

    B. AC is 7 units, BC is 3 units

    C. Angle B is 50 degrees, BC is 4 units

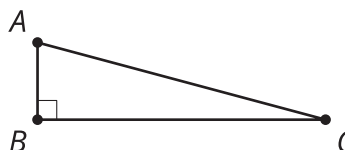   D. Angle A is 30 degrees, BC is 5 units

    E. AC is 8 units, BC is 6 units

4. What is a reasonable approximation for angle B if the ratio of the adjacent leg divided by the hypotenuse is 0.45?

    A. 27 degrees

    B. 30 degrees

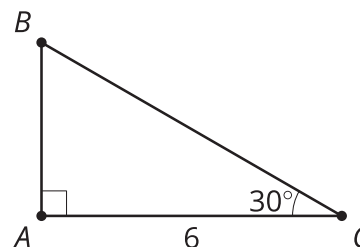   C. 60 degrees

    D. 63 degrees

(From Unit 4, Lesson 4.)

5. Estimate the values to complete the table.

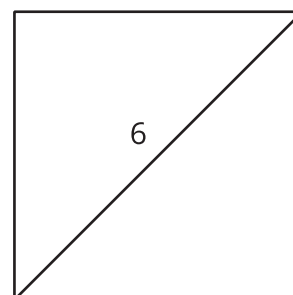| angle	adjacent leg ÷ hypotenuse	opposite leg ÷ hypotenuse	opposite leg ÷ adjacent leg
A	0.31	0.95	3.1
C			

(From Unit 4, Lesson 4.)
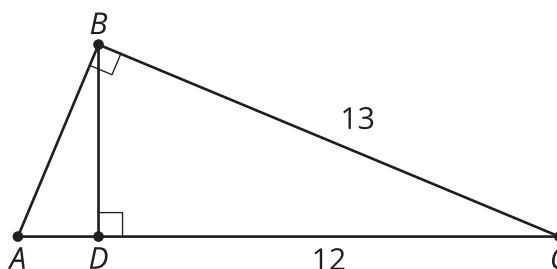
6. What is the length of side AB?

(From Unit 4, Lesson 3.)

7. What is the length of the square's side?

    A. 3 units

    B. $\dfrac{6}{\sqrt{2}}$ units

    C. $6\sqrt{2}$ units

    D. 12 units

8. Find the lengths of segments AD and BD. Then check your answers using a different method.

(From Unit 3, Lesson 13.)