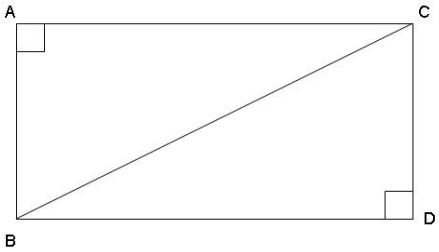
Chose the best answer to each problem.

1. Two triangles that are <u>similar</u> have the following properties in common:

a. A right angle
b. One side length the same
c. All three angle measures equal
d. One angle measurement equal and one side length equal

Use the figure below to answer questions 2 and 3.



2. Based on the rectangle ABCD, what is the sum of the measure of <ABD + <CDB?

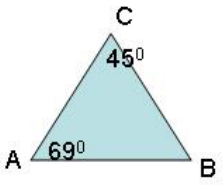
a. 60 degrees
b. 90 degrees
c. 120 degrees
d. 180 degrees

3. Based on the figure, if L is the length and W is the width, what is the length of the diagonal line?

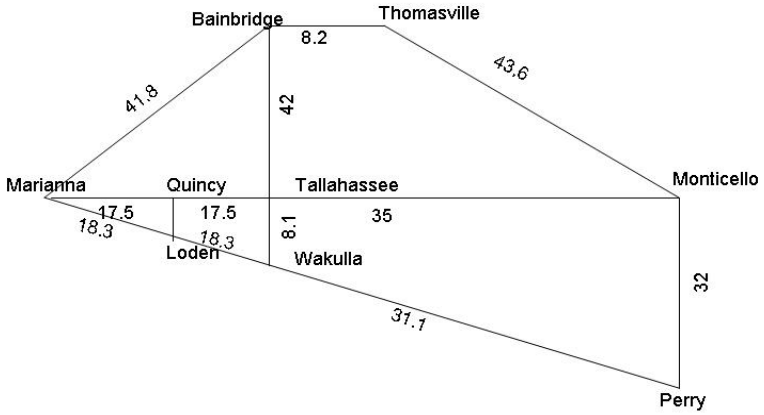
a. L + W
b. $L^2 + W^2$
c. $\frac{L^2 + W^2}{2}$
d. $\sqrt{L^2 + W^2}$

4. What is the measure of <ABC in the triangle?

a. 32°
b. 66°
c. 70°
d. 114°



This road map shows the distances in miles between several towns. Study the map then answer numbers 5 through 7.



5. While driving in one of the towns, you see this sign. What town are you in?

   a. Perry
   b. Quincy
   c. Wakulla
   d. Monticello

Bainbridge	50.1
Tallahassee	8.1
Marianna	36.6

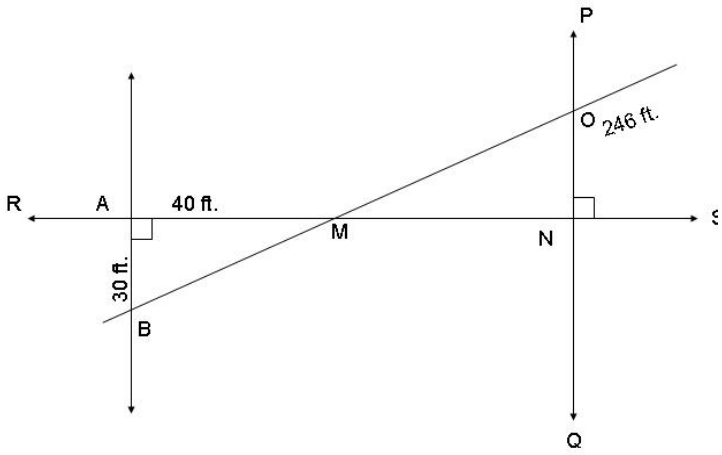
6. What is the shortest driving distance from Bainbridge to Perry?

   a. 73.2 miles
   b. 81.2 miles
   c. 83.8 miles
   d. 109 miles

7. What is the best estimate of the distance from Quincy to Loden if the triangle formed by the cities Marianna, Quincy, and Loden is similar to the triangle formed by the cities Marianna, Monticello, and Perry?

   a. 6 miles
   b. 7 miles
   c. 8 miles
   d. 9 miles

Study the diagram, then do problems 8-11.



8. Which points are vertices of 90° angles?

   a. A & B
   b. A & N
   c. M & N
   d. N & O

9. If triangle MAB is a right triangle, what is the distance from B to M?

   a. 60 feet
   b. 50 feet
   c. 10 times the square root of 7 feet
   d. Square root of 70 feet

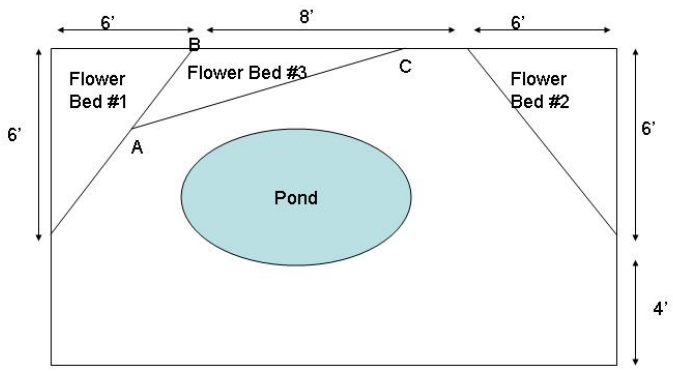
10. Which of these pairs of angles is congruent?

    a. <AMB and <OMN
    b. <MAB and <MON
    c. <ABM and <AMO
    d. <NMO and <ONS

11. Which of these proportions between the side lengths exist because of the similarity between triangles ABM and NOM?

    a. $\frac{AM}{NO} = \frac{AM}{MO}$
    b. $\frac{AM}{AB} = \frac{NM}{NO}$
    c. $\frac{AM}{MB} = \frac{ON}{OM}$
    d. $\frac{MB}{OM} = \frac{AM}{ON}$

Study the diagram to answer questions 12 and 13.



12. What type of triangle is formed by the shape of flowerbeds 1 & 2?

a. Obtuse
b. Scalene
c. Isosceles
d. Equilateral

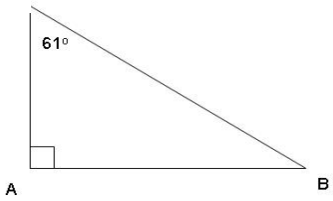
13. What kind of triangle is formed by the shape of flowerbed 3?

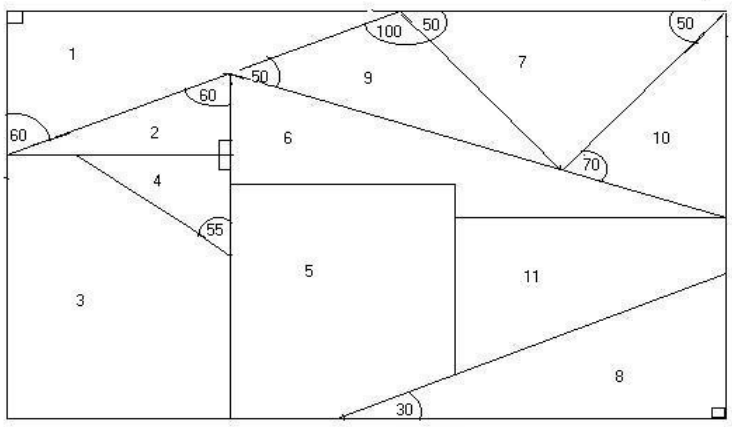
a. Obtuse
b. Scalene
c. Isosceles
d. Equilateral

Use the picture given for each question to find the correct answer.

14. What is the measure of <ABC in the triangle?

a. 29°
b. 71°
c. 90°
d. 151°



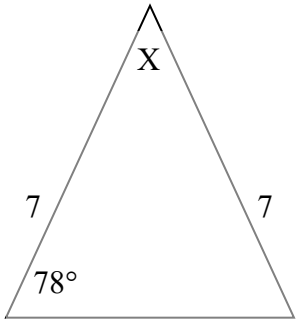


15. Which two pieces are **similar**?

a. 1 & 2
b. 3 & 4
c. 3 & 7
d. 1 & 8

16. This diagram shows an isosceles triangle.
What is the measure of <X?

a. 24°
b. 102°
c. 78°
d. 12°



Answer Key

1. C
2. B
3. D
4. B
5. C
6. B
7. C
8. B
9. B
10. A
11. B
12. C
13. A
14. A
15. D
16. A