Name _____ **Date** _____

LESSON 7.2

Practice C

For use with pages 440–447

Decide whether the numbers can represent the side lengths of a triangle. If they can, classify the triangle as *acute, right,* or *obtuse.*

1. 26, 35, 62

2. 14, 18, 29

3. 30, 72, 78

4. 17, 19, 22

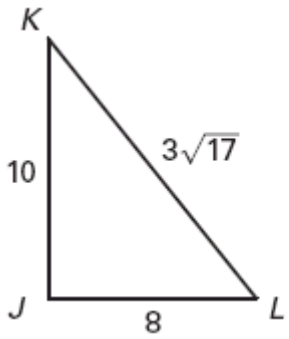
5. 27, 36, 45

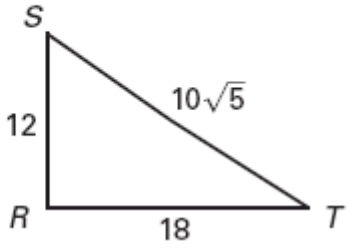
6. 25, 36, 49

In Exercises 7 and 8, copy and complete the statement with <, >, or =, if possible. If it is not possible, *explain* why.

7. $m\angle J$ ____ $m\angle R$

8. $m\angle K + m\angle L$ ____ $m\angle S + m\angle T$

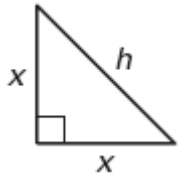




9. Multiple Choice What type of triangle has side lengths of 14, 11, and 25?

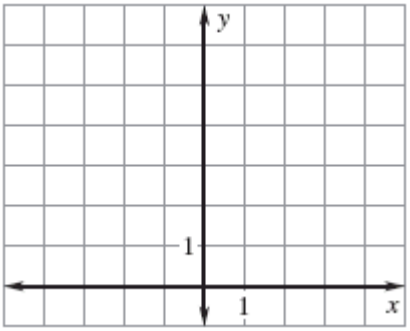
A. Acute **B.** Right **C.** Obtuse **D.** None

10. Right Isosceles Triangle A right isosceles triangle has two legs of the same length x and a hypotenuse of length h. What is the value of h in terms of x?

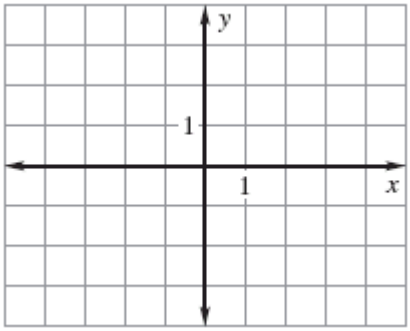


Graph points *A, B,* and *C.* Connect the points to form Δ*ABC.* Decide whether Δ*ABC* is *acute, right,* or *obtuse.*

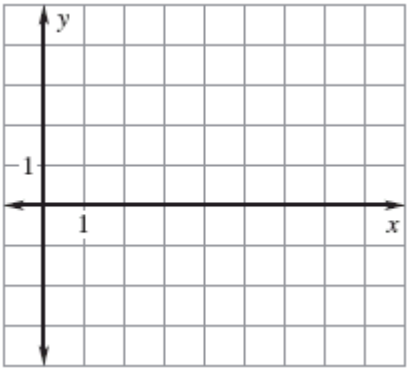
11. $A(-1, 4)$, $B(1, 1)$, $C(4, 3)$



12. $A(-2, 2)$, $B(2, -3)$, $C(4, -1)$

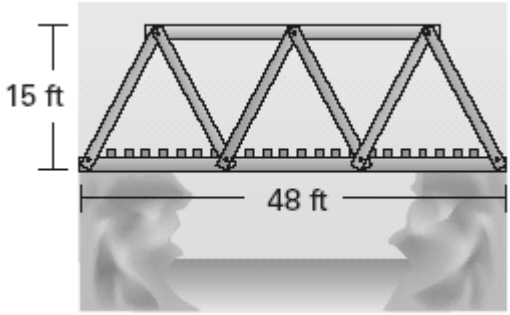


13. $A(2, 1)$, $B(3, -4)$, $C(6, 5)$



In Exercises 14 and 15, use the diagram and the following information.

Railroad Bridge Many railroad bridges are designed using triangular structures like the one in the diagram. All five triangles in the design are congruent. The length of the bridge is 48 feet and the height is 15 feet.



14. Are the triangles in the structure *acute, right* or *obtuse* triangles?

15. How many feet of material are needed to build one side of the bridge as shown in the diagram?