Name: _____

Date: _____ Grade: _____

SECTION QUIZ 2-1



Remember:
Score an 85% or higher on all three quizzes and you may be exempt from the chapter test!



Congratulations! You have completed this section!
Answer the following questions to test your understanding of the material. When you are finished, hand in your quiz to your teacher. Each answer is worth 2.2 points.

1. _____ (angular, coefficient, similar) objects have the same shape.

2. _____ (equal, covalent, congruent) objects have the same shape and size.

3. An instrument similar to a ruler used to draw straight lines is called a _____ edge.

4. An instrument used to draw circles and arcs is called a _____.

Match the following properties to determine congruency or similarities of two triangles (5-8).

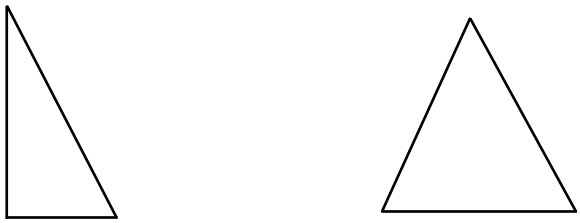
5. _____ S-A-S Property of Triangles (a) Two angles and included side congruent

6. _____ Angle-Side-Angle Property (b) All three corresponding angles congruent

7. _____ Angle-Angle-Angle Property (c) All three corresponding sides congruent

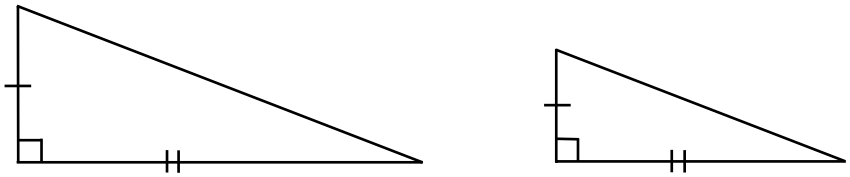
8. _____ Side-Side-Side Property (d) Two sides and angle formed by intersection congruent

9. The two triangles below are _____ (congruent, similar, neither).



Determine the property (A-A-A, A-S-A, S-A-S or S-S-S) that you would use to show the two triangles in each question are similar. Write the correct property on each blank (10-12).

10. _____



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11. _____



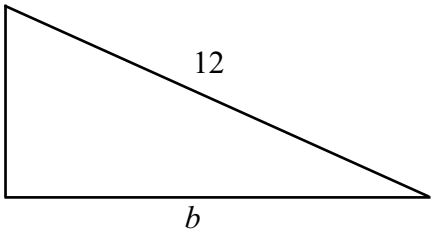
12. _____



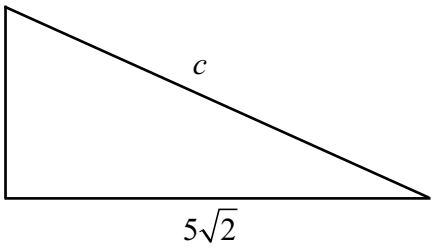
Demonstrate your understanding of triangles (13-17).

13. If the other two angles of a right triangle are 30° and 60°, then the hypotenuse is twice the length of the shortest leg of the triangle (the side opposite the 30° angle). The other leg (the side opposite the 60° angle) is $\sqrt{3}$ times longer than the shortest leg. This is a statement of the _____ (30 - 60 - 90, 45 - 45 -90) Triangle Property.

14. Determine the length of side *b* in the 30 - 60 - 90 triangle below. _____



15. The length of side *c* in the 30 - 60 - 90 triangle below is _____.



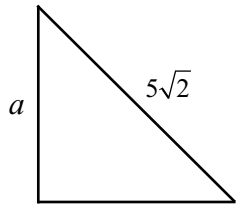
16. "The hypotenuse of an isosceles right triangle has a length equal to $\sqrt{2}$ times the length of one of the two legs" is a statement of the _____ Triangle Property.
(a) 30 - 45 - 90 (b) 30 - 60 - 90 (c) 45 - 45 - 90

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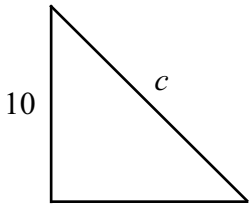
17. A right triangle containing two congruent sides and two congruent angles is called an _____ (obtuse, isosceles, equilateral) right triangle.

Determine the length of the indicated side of these 45 - 45 - 90 triangles.

18. a = _____ units



19. c = _____ units



Show your calculations for questions 20-25.

20. The length of the hypotenuse of a 30 - 60 - 90 triangle is 20 inches. The length of the shortest leg is _____.

(a) 10 meters (b) 5 inches (c) 3 inches (d) 10 inches

21. The length of the leg of a 45 - 45 - 90 triangle is 8 centimeters. The length of the hypotenuse is _____.

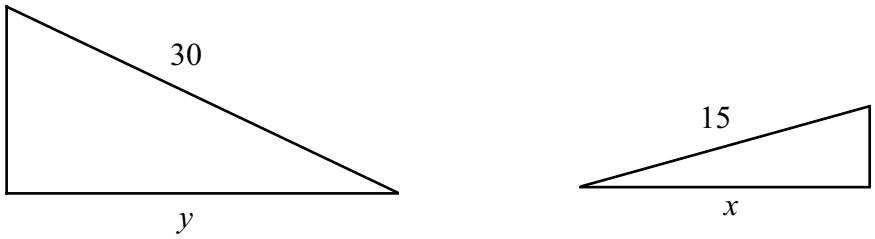
(a) 6 cm (b) $8\sqrt{2}$ cm (c) 4 cm (d) 2

22. A 30 - 60 - 90 triangle has a hypotenuse of 50 centimeters. Determine the length of the side opposite the 60° angle (the shortest side times $\sqrt{3}$). (Use the 30 - 60 - 90 Triangle Property to make the calculation.) _____

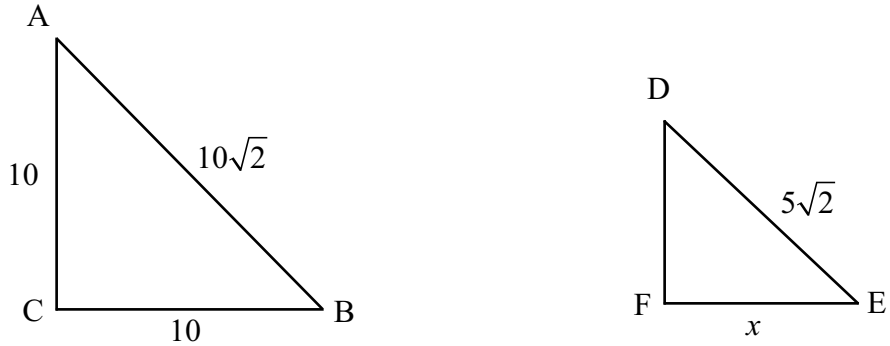
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23. Determine the length of the shortest leg of a triangle similar to the triangle in #25 if the hypotenuse of the second triangle is 20. Use the properties of similar triangles to calculate the length. Draw a picture of the two triangles in the space below. Set up a proportion and show your work. _____

24. Use the properties of 30 - 60 - 90 and similar triangles to determine the length of the side labeled x in the 30 - 60 - 90 triangles below. x = _____



25. Determine the lengths of the legs of DEF. x = _____



Fill in the blank.

26. _____ and proportions can be set up between the sides of similar triangles.

27. A comparison of two numbers, usually written in fraction form, is called a _____ (ratio, proportion).

28. A comparison of two ratios written as an equality is called a _____ (ratio, proportion).

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SECTION QUIZ 2-1

Demonstrate your understanding of networks.

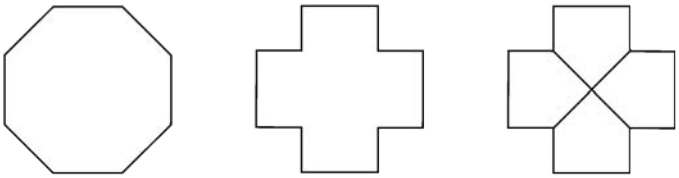
29. A _____ (vertex, station) is a starting or stopping place in a network.

30. An odd vertex has an _____ (odd, even) number of paths meeting at that point.

31. An even vertex has an _____ (odd, even) number of paths meeting at that point.

32. A network that is traversable and the starting and stopping points are the same point is called a(n) _____ (electric, Euler, non-Euler) Circuit.

33. The letter of the network below that is not traversable is _____.

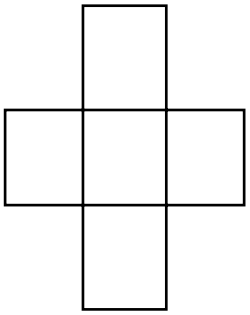


(a) (b) (c)

34. Is the network below traversable? Yes _____ No _____



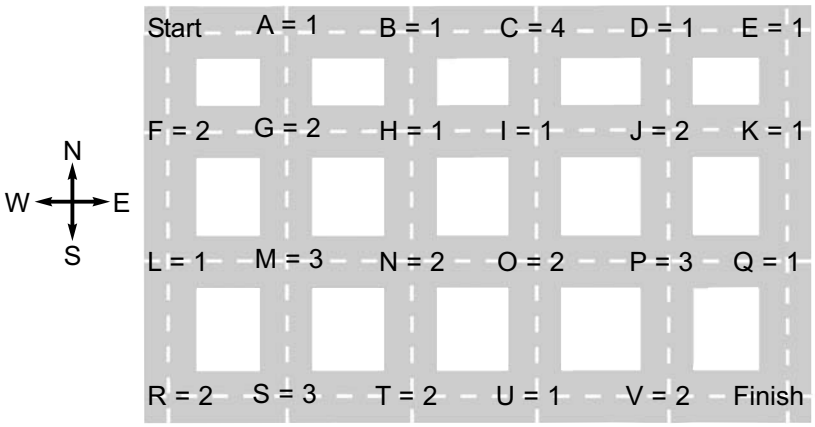
35. The network below is a Euler Circuit._____ (a) True or (b) False



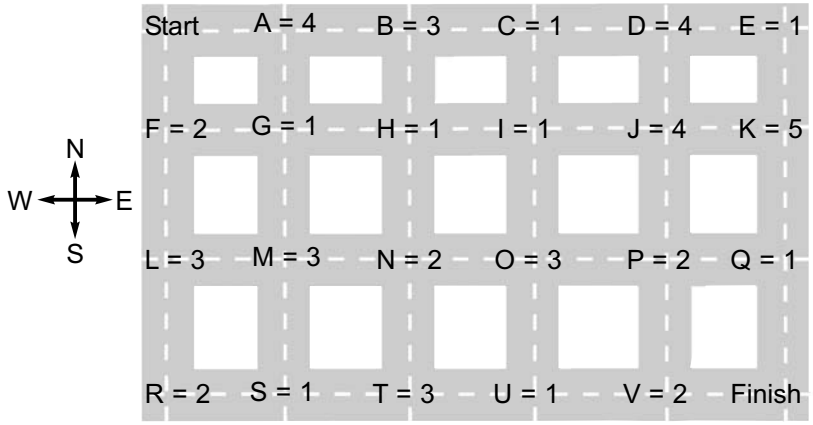
36. The rule of thumb in network problems when moving from each location to another location is always to choose the next path with the _____ (most, least) value.

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37. Look at the figure below. The numbers represent the number of minutes to move through each intersection. Use the general rule of thumb to calculate the time of the fastest route from *Start* to *Finish*. You may only move East and South. _____ minutes.



38. Look at the figure below. The numbers represent the number of minutes to move through each intersection. Using the general rule of thumb, determine the fastest path and write the sequence of letters from *Start* to *Finish* on the blank. _____



Match the following Life Principles.

39. _____ *"The opportunities in life*	(a) *everyone attain the goal."*
40. _____ *"Hide not*	(b) *your talents."*
41. _____ *"You are always right*	(c) *to avoid harm in the present."*
42. _____ *"Wise people learn from the past*	(d) *to refuse to do wrong."*
43. _____ *"Working together helps*	(e) *are limitless."*

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