

2.1

Name _____

1. What is a polygon called if all the sides are congruent and all the angles are congruent?
2. What is the formula to find the total degrees inside a polygon?
3. If a polygon has 7 sides it is called a _____ 12 sides is a _____.
4. How many total degrees are inside a nonagon? Write the formula and show work.

5. If ABC is a right triangle and the hypotenuse is 12 and the other two sides are congruent to each other, what must the measure of the two sides be? Round to the nearest tenth. Draw a picture and show work.

6. Write the negation of each statement.
 - a. The sky is not blue.
 - b. The ice-cream is melted.
7. A statement written in if-then form is called a _____ statement.
8. Find the distance between the points A(-4,9) and B(10, -3). Show all work and round to the nearest tenth.

9. Write the midpoint formula.

10. If a triangle has an area of 31.5 square inches and the base of the triangle is 9 inches, what is the height of the triangle? Write the formula and show all work.

11. In the following conditional statement underline the hypothesis once and the conclusion twice.
If the rain stops then we will walk outside.
12. For the above conditional statement write the following SENTENCES.
Converse-
Inverse-
Contrapositive-
13. What are the three undefined terms of geometry?
14. What has many points and continues infinitely in both directions?
15. What do you call two angles that sum to 90 degrees:
16. Draw an example of vertical angles.
17. Draw an example of a linear pair. What is true about these angles?

18. Rewrite the statements as a single biconditional statement:
If a polygon has 10 sides, then it is a decagon.

19. Two angles are complementary. One angle is $(4x+8)$ and the other angle is $(x+2)$. Find the measure of each angle. Show work.

20. What is the complement of a 58 degree angle?

What is the supplement of a 110 degree angle?

21. Simplify the square roots. Leave in radical form. Show all work

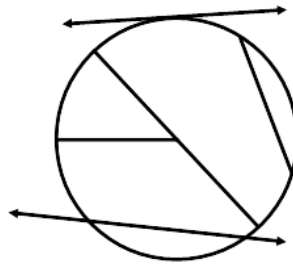
$$7\sqrt{75}$$

$$(\sqrt{67})^2$$

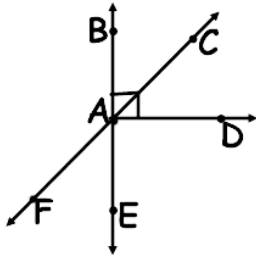
$$(5\sqrt{5})^2$$

22. Label the parts of a circle.

Use your notes to help you.



23. a. Name a pair of adjacent complementary angles.



b. $m\angle CAB = 30$, find $m\angle CAD$

c. Name a pair of acute vertical angles.

d. Name two angles that form a linear pair with $\angle BAF$.

e. $m\angle BAC = \frac{1}{2} m\angle BAF$. Find $m\angle BAF$.