

Write the next three numbers in each pattern.

1. 1,4,9,16...

2. 1,3,5,7...

3. A,B,C,D,E...

4. J,F,M,A,M...

5. 5,10,15,20...

6. 2,5,8,11...

7. In a conditional statement the part following the if is called the _____ and the part following the then is called the _____.

8. If it snows then it is cold outside. Find the following:

Contrapositive-

Inverse-

Converse-

9. Determine whether inductive reasoning or deductive reasoning is used to reach the conclusion.

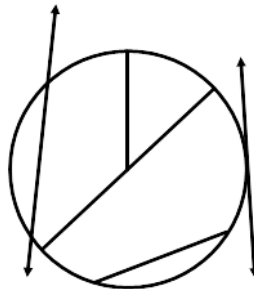
a. Every time it rains the dog hides under the couch. The next time it rains the dog will be under the couch.

b. Rational numbers can be written as a fraction. Irrational numbers can't be written as a fraction. $\frac{3}{4}$ is an example of a rational number.

10. Write the formula to find the total degrees in a polygon.

11. Use the formula you wrote above to find the total degrees in a hexagon. **SHOW WORK!**

12. Label the parts of the circle.



13. Simplify

$$7\sqrt{24}$$

$$(\sqrt{45})^2$$

$$(3\sqrt{5})^2$$

14. Find the distance between the points D(6, -8) and E(5, -5). WRITE THE FORMULA and SHOW WORK!

15. Find the supplement of a 72-degree angle.

16. Draw adjacent angles.

17. How many degrees in a triangle? In a quadrilateral?

18. Draw plane K with a line r intersecting at point S. Line r also contains points A and B. Point M isn't in the plane.

19. Measure in inches(1/16th). REDUCE

Measure in centimeters (1/10th). REDUCE

20. $\angle A$ and $\angle B$ are adjacent angles. They sum to 85 degrees. If $\angle A = 3x + 22$ and $\angle B = 5x - 17$, find the measure of each angle. SHOW WORK!

21. Write the area formulas for the following figures.

Square

Triangle

Circle

Trapezoid

Parallelogram

22. The measure of an angle is 20 degrees less than the measure of its supplement. Find both angles.

23. Explain why an obtuse angle doesn't have a complement.

24. Draw a nonagon that is concave.

25. Find the circumference of a circle with a diameter of $3 \frac{5}{8}$ inches. Write the formula and show work! Use a calculator to help you.