

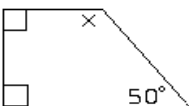
One-half point per answer

Label the following as T (true) or F (false).

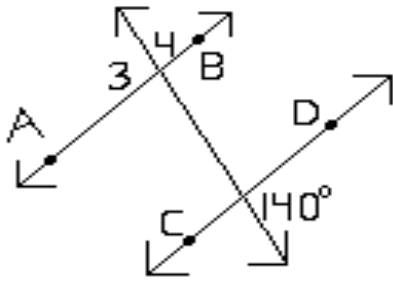
1. Every rectangle is a square.
2. Every square is a rhombus.
3. There are 360° in a circle.
4. The radius of a circle is one-third of its diameter.
5. A pyramid has only two bases.
6. The lateral faces of a prism are parallelograms.
7. All right triangles are similar.
8. The lateral faces of a pyramid are triangles.
9. There are 90° in a triangle.
10. Supplementary angles equal 90° .
11. Label each of the following as A (acute triangle), O (obtuse triangle), or R (right triangle).
 - a. All three angles less than 90° .
 - b. A triangle whose sides of length a, b, and c satisfy $a^2 + b^2 = c^2$.
 - c. One angle is greater than 90° .
 - d. A triangle with two 30° angles.
12. Label each of the following as S (scalene triangle), I (isosceles triangle), or E (equilateral triangle).
 - a. Only two congruent sides.
 - b. A triangle with sides measuring 1, 2, $\sqrt{3}$.
 - c. All angles equal 60° .
 - d. A triangle with no congruent sides.

One point per problem

13. Find the circumference of a circle with radius 3cm. Express your answer in terms of π .
14. If the area of a triangle is 24m^2 , and its height is 6m, what is the length of its base?
15. If one leg of a right triangle is 15 cm and the other leg is 8 cm, how long is the hypotenuse.
16. Find the missing angle in the trapezoid below:



17. If $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$, find the measures of angle 3 and 4. Note: Diagram is not drawn to scale.



Two points per problem

18. A rhombus is placed in a rectangular coordinate system such that the vertices are as follows: $A(-2,4)$, $B(1,2)$, $C(2, -4)$ and $D(-1, -2)$. What is the area of the rhombus?
19. $\angle EOD$ is a central angle with measure 45° . The radius of the circle is 3cm. Find the length of arc ED and round to the nearest tenth.
20. If a circle has a radius of 10in, which of the following has a perimeter closest to the circumference of the circle:
- A square with sides of 10ft.
 - A rectangle with length 12in and width 5in.
 - A square with sides of 20 in.
 - A rectangle with length 20ft and width 10ft.

School Name _____

JR. HIGH MATH LEAGUE

Geometry

GROUP 8-I TEST B

Spring 2001

ANSWER SHEET

One-half point per answer

1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

7. _____ 8. _____

9. _____ 10. _____

11. a. _____ b. _____

c. _____ d. _____

12. a. _____ b. _____

c. _____ d. _____

One point per problem

13. _____ centimeters

14. _____ meters

15. _____ centimeters

16. _____

17. angle 3 = _____

angle 4 = _____

Two points per problem

18. _____

19. _____ centimeters

20. _____