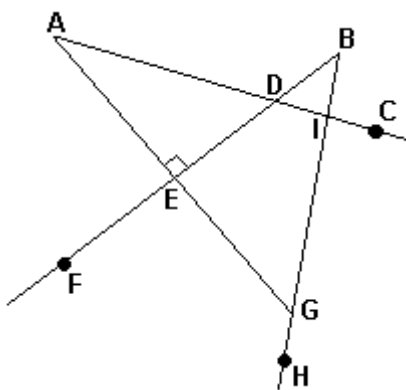


Simplify all answers and show your work!

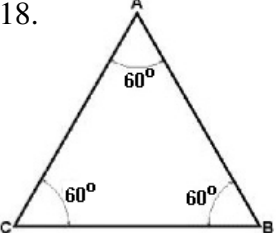
1. There are 360 degrees in a circle.
2. There are 180 degrees in a line.
3. There are 180 degrees in a triangle.
4. A right angle has measure of 90 degrees.
5. What is the vertex of $\angle FKE$? K
6. Two lines in a plane that do not cross are called parallel lines.
7. Two lines in a plane that cross in a right angle are called perpendicular lines.
8. Write in scientific notation: 0.000000000026
 2.6×10^{-11}
9. Write in engineering notation: 652,000,000,000
 652×10^9
10. Write using the correct metric prefix:
0.0000015 liters
1.5 microliters
11. 23 mm = 0.023 m
12. 5.7 km = 570,000 cm

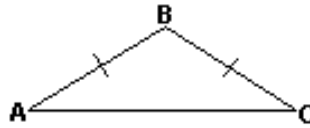
Refer to the figure below for problems 13 – 17.



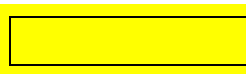
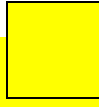
13. Name a right angle.
varies; 90° angle
14. Name an acute angle.
varies; angle between 0° and 90°
15. Name an obtuse angle.
varies; angle between 90° and 180°
16. If $AE = 5$ cm and $ED = 4$ cm, find the length of AD.
 ≈ 6.4 cm
17. If $AD = 11$ and $AE = 6$, find the length of ED.
 ≈ 9.2

Classify the following triangles as a) acute, right, or obtuse and b) scalene, isosceles, or equilateral.

18.  a) acute
b) equilateral

19.  a) obtuse
b) isosceles

20. Draw an example of two figures that have the same area but different perimeters.

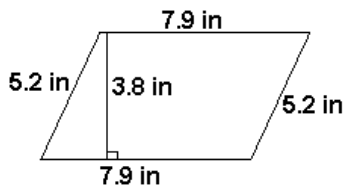
Answer varies. 1  Area = 4
Perimeter = 10 2  Area = 4
Perimeter = 8

21. A circular track is a mile long. What is the diameter of the circular track? (5,280 feet = 1 mile)

Diameter ≈ 1680.7 ft

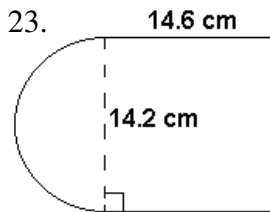
Find the areas of the figures below:

22.



30.02 in^2

23.

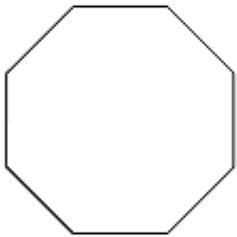


286.5 cm^2

24. If the figure below is a regular octagon, what is the measure of:

a) the sum of the interior angles?

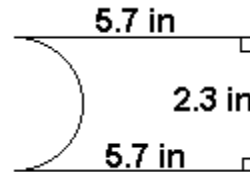
1080°



b) the measure of one interior angle?

135°

25. Find the perimeter of the figure below.



17.3 in

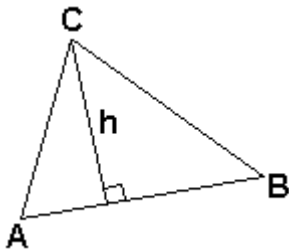
26. A yard in the shape of a square measures 18 ft on each side. A triangular area with a height of 4 ft and a base of 9 ft is dug up for a flowerbed. How much yard area is left over?

306 ft^2

27. Tom is going to build a fence around his garden, which is a rectangle measuring 15 m by 20 m. He will first put in posts, which will be 5 m apart. If the posts cost \$3.25 each, what will be the total cost for all the posts?

$\$45.50$

28. Given the triangle below, answer the following.



a) If $\angle A = 62^\circ$ and $\angle C = 49^\circ$, find $\angle B$. 69°

b) If $AC = 5.7 \text{ m}$, $BC = 6.9 \text{ m}$, and $AB = 7.2 \text{ m}$, find the perimeter of the triangle.

19.8 m

c) If $AB = 19.3 \text{ cm}$ and $h = 15.8 \text{ cm}$, find the area of the triangle.

152.47 cm^2