1. Select the geometric figure that possesses all of the following characteristics:
   i. three sided figure
   ii. two equal sides
   A) right triangle  B) isosceles triangle
   C) obtuse triangle  D) scalene triangle

2. Select the geometric figure that possesses all of the following characteristics:
   i. four equal sides
   ii. four equal angles
   iii. opposite sides are parallel
   A) rhombus  B) square  C) rectangle  D) parallelogram

3. Select the geometric figure that possesses all of the following characteristics:
   i. five equal sides
   A) rectangle  B) trapezoid  C) irregular pentagon  D) regular pentagon

4. Find the sum of the interior angles of a pentagon.
   A) 720°  B) 180°  C) 1080°  D) 360°  E) 540°

5. What is the distance around a right triangle if the shortest side is 9 centimeters and the longest side is 15 centimeters?
   A) 48 cm.  B) 36 cm.  C) 135 sq. cm.  D) 41 cm.

6. Find the area of a parallelogram whose base is 20 cm and whose height is 34 mm. Express the answer in cm².
   A) 68 cm²  B) 3400 cm²  C) 34 cm²  D) 6800 cm²  E) 46.8 cm²

7. What is the distance in yards around a circle with a radius of 9 feet?
   A) 3 yd.  B) 9 yd.  C) 81 yd.  D) 6 yd.

8. What will it cost to carpet a patio 15 feet wide by 18 feet long, if the carpet costs $8.50 per square yard?
   A) $16  B) $255  C) $2295  D) $270

9. What is the volume of a circular cone that has 4 inch height and 6 inch radius?
   A) 36 cu. in.  B) 48π cu. in.  C) 72π cu. in.  D) 144π cu. in.

10. What is the volume of a sphere that has a 9 foot radius?
11. Find the supplementary angle of 69°.
   A) 180°  B) 69°  C) 21°  D) 90°  E) 111°

12. Select the geometric figure that possesses all of the following characteristics:
   i. four equal sides
   ii. opposite sides are parallel
   A) square  B) parallelogram  C) rhombus  D) rectangle

13. What is the area of a triangle that has a base of 17 feet and a height of 20 feet?
   A) 170 sq. ft  B) 74 ft.  C) 340 sq. ft.  D) 340 ft.

14. What is the perimeter in inches of a patio that is 12 feet by 13 feet?
   A) 156 sq. in.  B) 600 in.  C) 100 ft.  D) 50 in.

15. What is the area of a square that has a side of 19 meters?
   A) 72 m  B) 361 sq. m  C) 180.5 m  D) 72 sq. m

16. What is the area of a circle with diameter 3 inches?
   A) 6 in.  B) 3 in.  C) 2.25 sq. in.  D) 9 sq. in.

17. What is the circumference in feet of a circular pool that has a diameter of 20 yards?
   A) 60π ft.  B) 100π sq. ft.  C) 40π ft.  D) 30π yds.

18. How many gallons of paint will be needed to paint the ceilings of 2 rooms that are each 18 ft. by 25 ft. if one gallon covers 300 sq. ft.?
   A) 4.5 gallons  B) 3 gallons  C) 1.5 gallons  D) 6 gallons

19. Find the area of a trapezoid whose bases are 11 ft and 19 ft and whose height is 4.5 ft.
   A) 67.5 ft²  B) 135 ft²  C) 470.25 ft²  D) 270 ft²  E) 34.5 ft²

20. What is the volume in meters of a rectangular solid that has 8 centimeters length, 15 centimeters width and 12 centimeters height?
   A) 1440 cu cm.  B) 1.44 cu. m  C) .0014 cu. m  D) 144 cu.m

21. What is the volume of a right circular cylinder with a 7 meter radius and a 12 meter height.
   A) 84 cu. m  B) 588π cu. m  C) 588 cu. m  D) 84π cu. m

22. What is the volume of a sphere that has a radius of 6 centimeters?
   A) 288π cu. cm  B) 72π cu. cm  C) 48π cu. cm  D) 216π cu. m