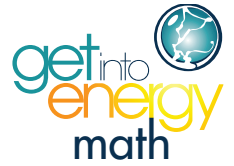


Name: \_\_\_\_\_ Date: \_\_\_\_\_



**Get Into Energy Math**  
**Student Quiz 17**  
**Geometry**

1. What polygon has opposite sides equal and parallel, and opposite angles equal but not 90 degrees?

- A. Rectangle
- B. Rhombus
- C. Trapezoid
- D. Parallelogram

2. What polygon has only two sides parallel and no sides equal?

- A. Parallelogram
- B. Rhombus
- C. Trapezoid
- D. Isosceles Trapezoid

3. What defines a polygon with four sides of any length?

- A. Triangle
- B. Quadrilateral
- C. Pentagon
- D. Square

4. What defines a polygon that has 4 equal angles and 2 sets of parallel sides?  
Not all sides are equal length.

- A. Rectangle
- B. Square
- C. Parallelogram
- D. Rhombus

5. What polygon has only two sides parallel, two sides equal, and two pairs of equal angles?

- A. Trapezoid
- B. Parallelogram
- C. Isosceles Trapezoid
- D. Triangle

6. What polygon has all sides equal, but not all interior angles equal, and also is a special form of a parallelogram?

- A. Square
- B. Trapezoid
- C. Rhombus
- D. Equilateral Triangle

7. Find the area of a rectangle whose length is 300 inches and width is 20 inches.

- A.  $640 \text{ in}^2$
- B.  $600 \text{ in}^2$
- C.  $3,000 \text{ in}^2$
- D.  $6,000 \text{ in}^2$

8. Find the area of a solid cone whose base radius is 10 inches and whose height is 9 inches.

- A.  $942 \text{ in}^3$
- B.  $300 \text{ in}^3$
- C.  $9,420 \text{ in}^3$
- D.  $890 \text{ in}^3$

9. Find the perimeter of a rectangular swimming pool whose length is 40 feet and width is 30 feet.

- A. 1,200 ft
- B. 140 ft
- C. 120 ft
- D. 160 ft

10. Find the volume of a prism whose bases are 9 square meters and height is 31 meters.

- A.  $40 \text{ m}^3$
- B.  $299 \text{ m}^3$
- C.  $279 \text{ m}^3$
- D.  $2,511 \text{ m}^3$

11. Find the perimeter of a triangle whose sides are 25 inches, 25 inches, and 52 inches.

- A. 625 in
- B. 75 in
- C. 77 in
- D. 102 in

12. Find the volume of a cylinder whose radius is 5 decimeters and height is 8 decimeters.

- A.  $628 \text{ dm}^3$
- B.  $125.6 \text{ dm}^3$
- C.  $628 \text{ dm}^2$
- D.  $15.7 \text{ dm}^2$

13. Determine the area of a triangle with a base length of 18 feet and height of 25 feet.

- A.  $43 \text{ ft}^2$
- B.  $225 \text{ ft}^2$
- C.  $2,225 \text{ ft}^2$
- D.  $225 \text{ in}^2$

14. What solid geometric figure will have  $\frac{1}{3}$  the volume of a cylinder if the base area and height are the same?

- A. Sphere
- B. Prism
- C. Cone
- D. Cube

15. Find the volume of a sphere whose radius is 3 yards.

- A.  $13.23 \text{ yd}^3$
- B.  $28.26 \text{ yd}^3$
- C.  $36 \text{ yd}^3$
- D.  $113.04 \text{ yd}^3$

16. Find the area of a rhombus whose sides are each 40 meters and whose height is 30 meters.

- A.  $3,600 \text{ m}^2$
- B.  $160 \text{ m}^2$
- C.  $1,200 \text{ m}^2$
- D.  $140 \text{ m}^2$

17. Find the surface area of a sphere whose radius is 10 inches.

- A.  $314 \text{ in}^2$
- B.  $1,256 \text{ in}^2$
- C.  $400 \text{ in}^2$
- D.  $133.3 \text{ in}^2$

18. Determine the volume of a cuboid whose sides measure 14 centimeters, 20 centimeters, and 3 centimeters.

- A.  $840 \text{ cm}^3$
- B.  $74 \text{ cm}^3$
- C.  $560 \text{ cm}^3$
- D.  $820 \text{ cm}^3$

19. Determine the perimeter of a parallelogram that has a base length of 35 inches and a side length of 25 inches.

- A. 60 in
- B. 120 in
- C. 144 in
- D. 825 in

20. Find the area of a circle whose radius is 100 millimeters.

- A.  $314 \text{ mm}^2$
- B.  $31,400 \text{ mm}^2$
- C.  $314,000 \text{ mm}^2$
- D.  $10,000 \text{ mm}^2$

21. Find the area of a trapezoid whose base lengths are 50 centimeters and 70 centimeters and whose height is 30 centimeters.
- A.  $1,750 \text{ cm}^2$
  - B.  $240 \text{ cm}^2$
  - C.  $1,800 \text{ cm}^2$
  - D.  $105,000 \text{ cm}^2$
22. Find the circumference of a circle whose radius is 4 inches.
- A. 6.28 in
  - B. 50.24 in
  - C. 16 in
  - D. 25.12 in
23. Find the perimeter of an isosceles trapezoid whose bases are 50 centimeters and 70 centimeters and sides are 45 centimeters.
- A. 165 cm
  - B. 210 cm
  - C. 157,500 cm
  - D. 215 cm
24. Find the area of an ellipse whose major axis is 100 feet and minor axis is 50 feet.
- A.  $5,000 \text{ ft}^2$
  - B.  $15,708 \text{ ft}^2$
  - C.  $3,927 \text{ ft}^2$
  - D.  $17,671 \text{ ft}^2$

25. Find the minor axis of an ellipse whose area is 15,700 square meters and major axis is 200 meters.

- A. 50 m
- B. 200 m
- C. 100 m
- D. 50 ft