

Level A - Form 1 - Applied Mathematics: Measurement

Sample Question

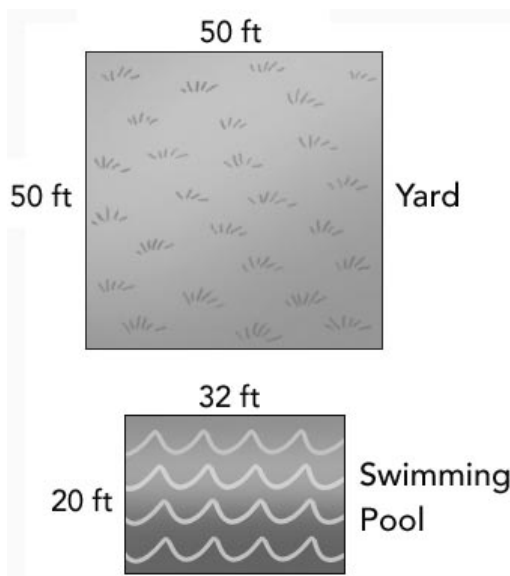


What is the perimeter of this square?

- A 5 inches
- B 10 inches
- C 20 inches
- D 25 inches

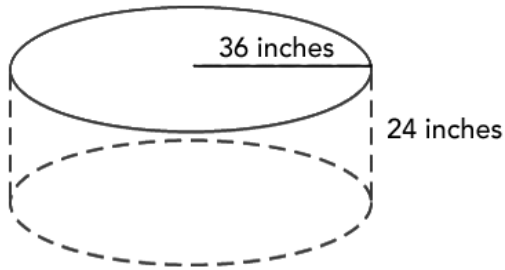
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The diagrams shows a yard and plans for a swimming pool. Study the diagrams. Then do Numbers 1 through 5.



- After the pool is installed, what will be the area of the yard around the pool?
 - 96 square feet
 - 640 square feet
 - 1,860 square feet
 - 2,500 square feet
- The pool is 5 feet deep throughout the pool. What is the volume of the pool?
 - 3,200 cubic feet
 - 520 cubic feet
 - 124 cubic feet
 - 4,625 cubic feet
- A fence will be placed around the perimeter of the yard. How much fencing is needed?
 - 100 feet
 - 250 feet
 - 200 feet
 - 2500 feet
- A worker for the pool company earns a total of \$424 for a 40-hour work week. What is the worker's hourly rate?
 - \$4.24 per hour
 - \$10.60 per hour
 - \$8.48 per hour
 - \$16.96 per hour
- What is the length of the pool in yards?
 - $6\frac{2}{3}$ yards
 - $16\frac{2}{3}$ yards
 - $10\frac{2}{3}$ yards
 - $34\frac{2}{3}$ yards

To make a fish pond in her yard, Aiesha wants to dig a circular hole that is 24 inches deep and has a radius of 36 inches. Study the diagram. Then do Numbers 6 through 7.



6. What is the depth of the pond in centimeters?

(1 inch = 2.5 centimeters)

- F 60 cm
- G 6 cm
- H 9.6 cm
- J 96 cm

7. What is the circumference of the pond?

($C = \pi d$)

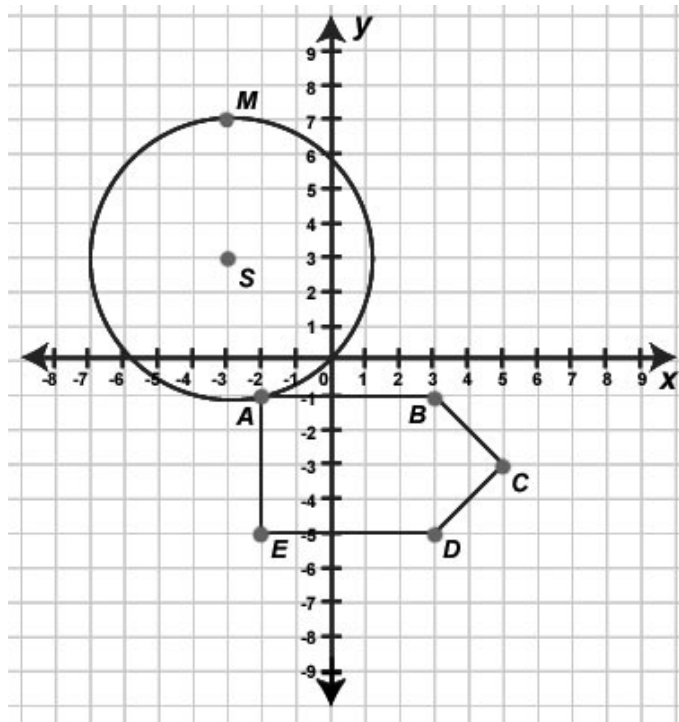
- A 36π inches
- B 72π inches
- C 18π inches
- D 24π inches

8. Marta measured the width of her window as 55.5 centimeters. How many inches is this?

(1 inch = 2.5 cm)

- F 138.75 inches
- G 222 inches
- H 22.2 inches
- J 13.875 inches

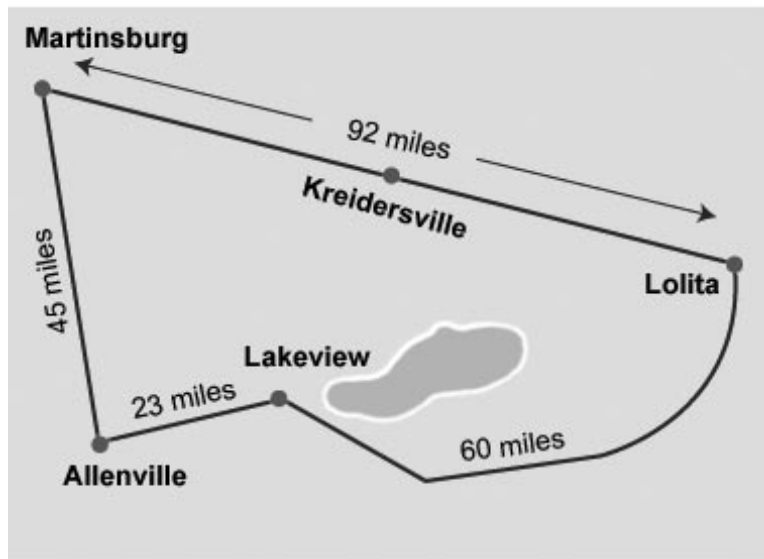
The graph shows figures on a coordinate grid. Study the graph. Then do Numbers 9 through 10.



9. What is the length of \overline{AB} ?
- A 5 units
 - B 4 units
 - C 8 units
 - D 6 units

10. What is the circumference of the circle S?
($C = \pi d$)
- F 4π units
 - G 8π units
 - H 10π units
 - J 16π units

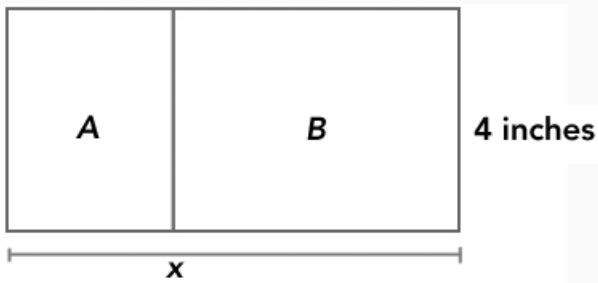
Jared is a salesperson. The map shows one of his sales routes. Study the map. Then do Numbers 11 through 12.



11. Jared drove 312 miles in 5 hours. What was his rate per hour?
- A 15.6 miles per hour
 - B 156 miles per hour
 - C 6.24 miles per hour
 - D 62.4 miles per hour
12. On Jared's drive from Martinsburg to Lolita, he stopped in Kreidersville for lunch. Kreidersville is midway between the two cities. What is the approximate distance from Martinsburg to Kreidersville?
- F 92 miles
 - G 184 miles
 - H 46 miles
 - J 31 miles

13. A fan blade set at low speed rotates 60 times in 5 seconds. How many times does it rotate per second?
- A 30 times per second
 - B 12 times per second
 - C 10 times per second
 - D 300 times per second

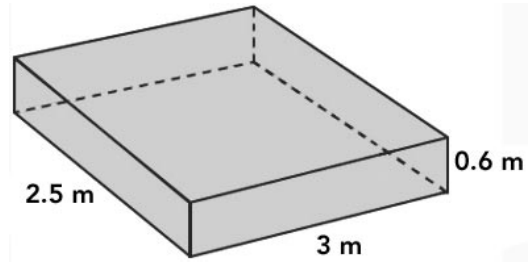
14. In this diagram, rectangle *A* has an area of 12 square inches and rectangle *B* has an area of 20 square inches. What is the value of *x*, the length of the two rectangles joined together?



- F 3 inches
- G 4 inches
- H 5 inches
- J 8 inches

15. A square room has a perimeter of 64 feet. What is the length of each wall?
- A 8 feet
 - B 14 feet
 - C 32 feet
 - D 16 feet

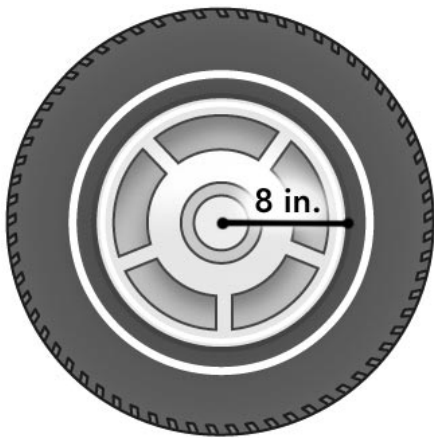
16. What is the volume of this box in cubic meters?



- F 4.5 cubic meters
- G 6.1 cubic meters
- H 7.2 cubic meters
- J 3.1 cubic meters

17. George wants to put a small fence around his garden. The garden is 17 feet long and 9 feet wide. How much fencing does he need to buy?
- A 43 feet
 - B 26 feet
 - C 153 feet
 - D 52 feet

18. The distance from the hubcap to the outside edge of the tire is 4 inches. What is the circumference of the tire?
($C = \pi d$)



- F 8π inches
- G 4π inches
- H 12π inches
- J 24π inches

19. Kendra used 225 cubic feet of concrete to make her new patio. The patio is a rectangular concrete slab and measures 25 feet by 18 feet. How thick is the concrete slab?

- A 5 feet
- B $\frac{1}{2}$ foot
- C 1 foot
- D 2 feet

20. The dimensions of Mark's den are 12 feet by 11 feet. He wants to tile the floor using 1-foot square tiles. How many tiles will he need?

- F 264
- G 46
- H 132
- J 23