



SUBJECT: Mathematics

6th grade

mensuration

Name:

Fortnight 3

1. A rectangular garden is 10 meters long and 5 meters wide. If you want to build a fence around the entire garden and cover the garden with grass, how much fencing material and how much grass would you need, respectively?
A 20 meters of fencing and 25 square meters of grass
B 30 meters of fencing and 50 square meters of grass
C 15 meters of fencing and 15 square meters of grass
D 30 meters of fencing and 15 square meters of grass
2. A square tile has a side length of 12 cm. What is its perimeter? What is its area? If you have 4 such tiles, what is the total area they cover?
A Perimeter = 48 cm, Area = 144 cm², Total Area = 576 cm²
B Perimeter = 144 cm, Area = 48 cm², Total Area = 192 cm²
C Perimeter = 48 cm, Area = 144 cm², Total Area = 720 cm²
D Perimeter = 12 cm, Area = 12 cm², Total Area = 48 cm²
3. You are painting a rectangular wall that is 8 feet tall and 15 feet wide. What is the area of the wall you need to paint? If one can of paint covers 50 square feet, how many cans of paint will you need?
A 1 can B 2 cans C 3 cans D 4 cans
4. A rectangular swimming pool is 20 meters long and 10 meters wide. If the water is 2 meters deep, what is the volume of water in the pool? The volume of a rectangular prism is given by the formula: Volume = length \times width \times height.
A 400 cubic meters B 200 cubic meters C 500 cubic meters D 40 cubic meters
5. A rectangular piece of paper measures 30 cm by 20 cm. A square with a side length of 5 cm is cut out from one corner. What is the remaining area of the paper?
A 575 cm² B 600 cm² C 550 cm² D 595 cm²
6. A circular pizza has a diameter of 14 inches. What is the radius, circumference, and area of the pizza? (Use $\pi \approx \frac{22}{7}$)
A Radius = 7 in, Circumference = 44 in, Area = 154 sq in
B Radius = 7 in, Circumference = 154 in, Area = 44 sq in
C Radius = 14 in, Circumference = 44 in, Area = 154 sq in
D Radius = 14 in, Circumference = 154 in, Area = 44 sq in
7. You are tiling a rectangular floor that measures 5 meters by 4 meters. You are using square tiles that measure 0.5 meters by 0.5 meters. How many tiles will you need to cover the entire floor?
A 20 B 40 C 80 D 160
8. A cube has a volume of 27 cubic cm. What is the length of one edge? What is its surface area?

A Edge = 3 cm, Surface Area = 27 sq cm
C Edge = 3 cm, Surface Area = 54 sq cm

B Edge = 9 cm, Surface Area = 81 sq cm
D Edge = 3 cm, Surface Area = 81 sq cm

9. A cylindrical can of paint has a radius of 5 inches and a height of 8 inches. What is the volume of paint in the can? What is the total area of the top and bottom of the can?
- A Volume: 40π cubic inches, Area: 50π square inches
B Volume: 200π cubic inches, Area: 50π square inches
C Volume: 200π cubic inches, Area: 100π square inches
D Volume: 40π cubic inches, Area: 100π square inches
10. A rectangular floor measures 10 meters by 8 meters. If you want to cover this floor with square tiles, each measuring 2 meters by 2 meters, how many tiles will you need?
- A 10 B 16 C 20 D 40
11. A triangular prism has a base triangle with a base of 6 cm and a height of 4 cm. If the prism is 10 cm long, what is its volume?
- A 240 cm³ B 120 cm³ C 60 cm³ D 24 cm³
12. You are building a rectangular sandbox that is 5 feet long, 4 feet wide, and 1 foot deep. How many cubic feet of sand do you need to fill it?
- A 9 cubic feet B 20 cubic feet C 10 cubic feet D 40 cubic feet
13. A circular clock face has a radius of 10 cm. What is the circumference of the clock face? What is the area of the clock face? (Use $\pi \approx 3.14$)
- A Circumference = 62.8 cm, Area = 314 sq cm B Circumference = 31.4 cm, Area = 157 sq cm
C Circumference = 62.8 cm, Area = 314 cm² D Circumference = 31.4 cm, Area = 157 cm²
14. A rectangular piece of fabric measures 100 cm by 60 cm. If a square of side 20 cm is cut out from each of its four corners to form an open box, what is the area of the fabric that remains?
- A 4400 cm² B 5600 cm² C 3600 cm² D 4800 cm²
15. A rectangular swimming pool is 20 meters long, 10 meters wide, and 2 meters deep. How many liters of water will be needed to fill the pool completely if 1 cubic meter is equal to 1000 liters?
- A 400,000 liters B 40,000 liters C 20,000 liters D 4,000 liters

Q2: A
Q3: B
Q4: A
Q5: A
Q6: A
Q7: C
Q8: C
Q9: B
Q10: C
Q11: B
Q12: B
Q13: A

Q14: A

Q15: B