Functional Skills

Level 1

Topic

Perimeter, Area and Volume
Questions 1 to 3 are about a car supermarket.

1. The car supermarket display space measures 12.6 metres long and 7.4 metres wide. The owner calculates the area as 93.2 square metres. Which calculation gives the closest estimate of the area of the showroom display?

   A  12 \times 7  
   B  12 \times 8  
   C  13 \times 7  
   D  13 \times 8

2. The supermarket gives away a container of shampoo with each car they sell.

   How much shampoo does the container hold when it is full?

   A  65\text{cm}^3  
   B  425\text{cm}^3  
   C  1000\text{cm}^3  
   D  10000\text{cm}^3
3. The waiting room in the workshop is 5 metres long and 2.5 metres wide. What is the area of the waiting room floor?

A  7.5m²  
B  10.5m²  
C  12.5m²  
D  15.0m²

4. The diagram shows the floor of the hallway of a house. What is the area of the floor?

A  5.0m²  
B  6.8m²  
C  9.0m²  
D  13.6m²
5. A water tank measures 200cm by 120cm by 100cm.

What is the volume of the tank?

A. 420cm³
B. 20 120cm³
C. 24 000cm³
D. 2 400 000cm³

6. Part of a garden measures 5.4 metres long and 4.0m wide. A workman calculates its area.

The exact area is

A. 9.4m²
B. 18.8m²
C. 21.6m²
D. 43.2m²
7 A fish tank measures 90 centimetres by 30 centimetres by 30 centimetres. What is the volume of the tank?

A 150cm³  
B 2700cm³  
C 5400cm³  
D 81000cm³  

8 A rectangular bathroom floor measures 3 metres by 2.25 metres. What is the area of the bathroom floor?

A 5.25m²  
B 6.75m²  
C 9.00m²  
D 10.50m²
Questions 9 and 10 are about a shop.

9  This is a floor plan of a storeroom in the shop.
   What is the area of the storeroom?

   Diagram not to scale

   - 80m
   - 50m

   A  260m²
   B  400m²
   C  1 300m²
   D  4 000m²

10  The storeroom will have large freezers to store frozen food.
    The diagram shows the measurements of the inside of a freezer.

   Diagram not to scale

   - 6 m
   - 2.5 m
   - 2 m

   What is the volume of this freezer?

   A  10.5m³
   B  24.5m³
   C  27.0m³
   D  30.0m³
11 A woman is planning a camping trip. She asks about hiring a trailer. The inside measurements of one trailer are 1 metre wide, 2 metres long and 0.5 metres deep.

What is the volume of the trailer?
A $1\text{m}^3$
B $2\text{m}^3$
C $2.5\text{m}^3$
D $3.5\text{m}^3$

Questions 12 to 16 are about a decoration project.

12 A couple are decorating the bathroom. Part of the wall above the bath will be tiled with mirror tiles. The diagram shows this part of the wall.

The area of this part of the wall is
A $0.96\text{m}^2$
B $2.2\text{m}^2$
C $2.67\text{m}^2$
D $4.4\text{m}^2$

13 The woman works out the area of a wall she needs to paint. The wall is 5 metres long and 2.6 metres high. The area of the wall is
A $7.6\text{m}^2$
B $12.6\text{m}^2$
C $13.0\text{m}^2$
D $15.2\text{m}^2$
14 She fits an extractor fan in the kitchen.  
    The choice of the fan depends on the volume of the kitchen.  
    The kitchen is 2.5 metres high, 4 metres long and 3 metres wide.  
    
    The volume of the kitchen is  
    
    A 9.5m³  
    B 13m³  
    C 19.5m³  
    D 30m³  

15 The couple decide to tile the kitchen floor.  
    The kitchen is 4 metres long and 3 metres wide.  
    The tiles are 0.5 metres by 0.5 metres.  
    How many tiles will they need?  
    
    A 48  
    B 24  
    C 12  
    D 6  

16 They decide to put a plate shelf around all four walls of the kitchen, 50 centimetres from the top of the wall.  
    The kitchen is 4 metres long and 3 metres wide.  
    What is the length of shelving required?  
    
    A 12 m  
    B 24 m  
    C 7 m  
    D 14 m