Nanyang Primary School
Primary 5
Mathematics
Term 2 Weighted Assessment

Name: _____ ( )

Class: Primary 5 ( )

Marks: /20

Date: _____ Parent's Signature: _____

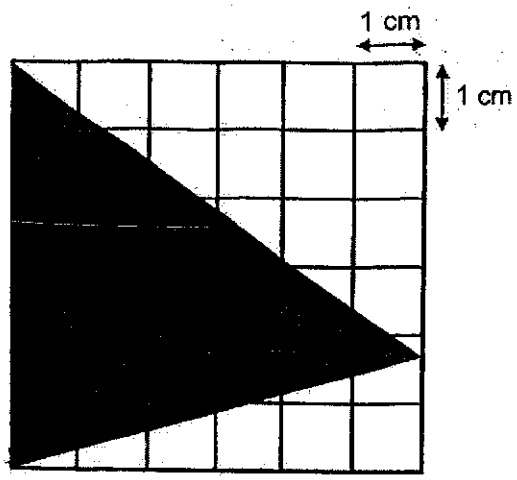
Duration: 40 minutes

The use of an approved calculator is allowed.

Please sign and return the paper the next day. Any queries should be raised at the same time when returning paper.

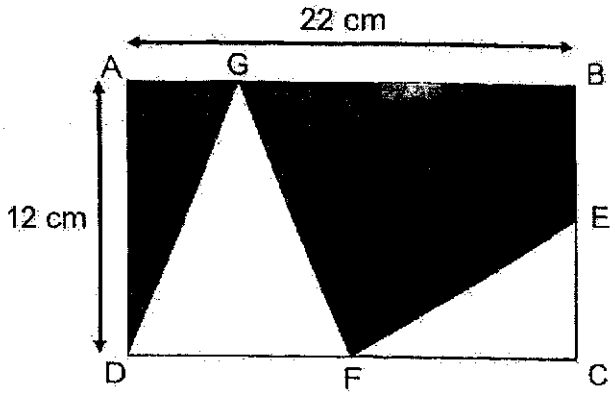
Questions **1** to **2** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (4 marks)

1 Find the area of the shaded triangle.



Ans: _____ cm^2

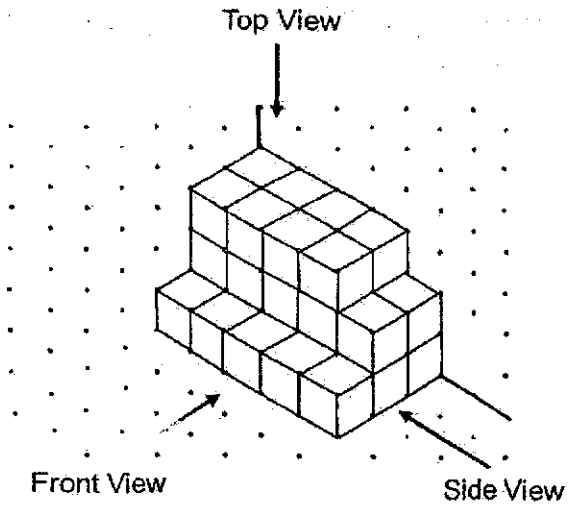
2 In the figure below, ABCD is a rectangle. AGB, BEC and DFC are straight lines. DF = FC and BE = EC. Find the total area of the shaded parts.



Ans: _____ cm^2

For questions 3 to 6, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (16 marks)

3 The figure below shows a solid made up of 1-m cubes.

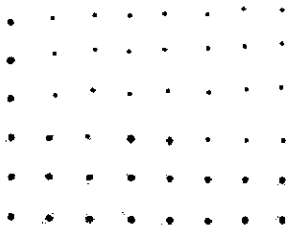


(a) Find the volume of the solid.

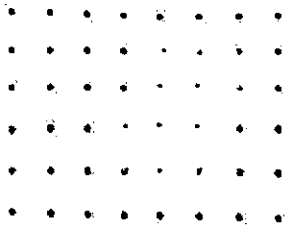
Ans: (a) _____ [1]

(b) Draw the front view and the side view of the solid on the grids below.

Front View



Side View



[2]

4 Sam, Abu and Ravi went jogging. They jogged 6100 m in total. Sam jogged 0.447 km more than Abu. Ravi jogged 0.8 km less than Sam.

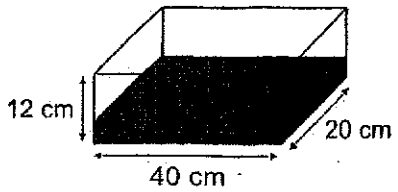
(a) Express the total distance they jogged in kilometres.

Ans: (a) _____ [1]

(b) How far did Ravi jog?

Ans: (b) _____ [3]

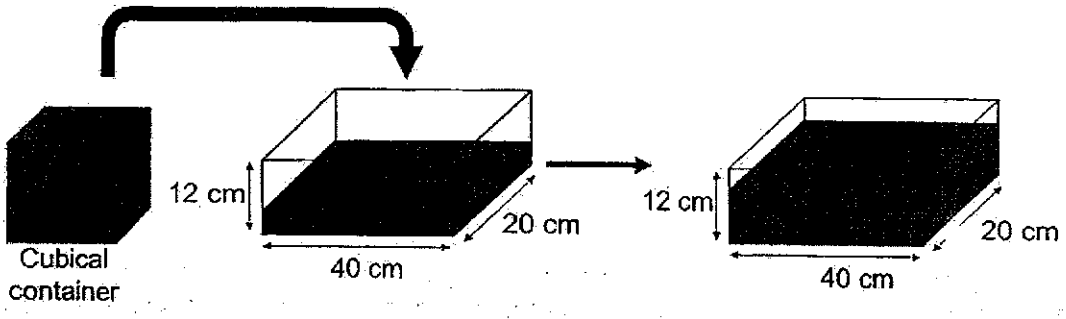
5 A rectangular tank, measuring 40 cm by 20 cm by 12 cm, contained 2400 ml of water.



(a) What was the volume of the tank?

Ans: (a) _____ [1]

(b) A cubical container was filled with water to the brim. Some of the water from the cubical container was poured into the tank until the tank was $\frac{3}{4}$ full. There were 1032 ml of water left in the cubical container.



What was the capacity of the cubical container?
Give your answer in ℓ.

Ans: (b) _____ [3]

6 The table below shows the charges for sending parcels.

Mass of parcel	Charge	
Up to 3 kg	\$10	
Up to 5 kg	\$18	
Up to 10 kg	\$35	
More than 10 kg and up to 30 kg	First 10 kg	\$35
	Every additional kilogram or less	\$4.50

(a) Nancy sent two parcels with the mass of 4.6 kg and 12.5 kg. How much did she pay altogether?

Ans: (a) _____ [2]

(b) Mrs Siva wants to send 35 kg of rice to her shop. As she cannot send any parcel with mass above 30 kg, she decides to pack them into 2 smaller parcels. What is the least possible amount of money she must pay to send her rice?

Ans: (b) _____ [3]

End of Paper

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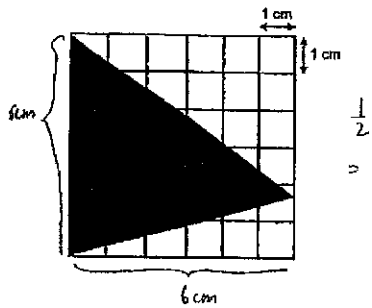
Questions 1 to 2 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (4 marks)

1 Find the area of the shaded triangle.



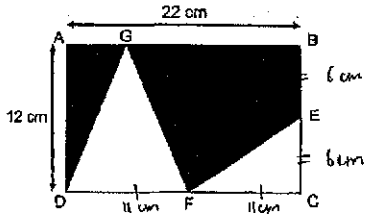
$\frac{1}{2} \times 6 \times 6$

$= 18$

Ans: 18 cm²

1

2 In the figure below, ABCD is a rectangle. AGB, BEC and DFC are straight lines. DF = FC and BE = EC. Find the total area of the shaded parts.



$22 \div 2 = 11$

$12 \div 2 = 6$

Area of $\triangle DGF = \frac{1}{2} \times 11 \times 12$

$= 66 \text{ cm}^2$

Area of $\triangle EFC = \frac{1}{2} \times 6 \times 11$

$= 33 \text{ cm}^2$

Area of ABCD $= 22 \times 12$

$= 264 \text{ cm}^2$

Total area of shaded parts $= 264 - 66 - 33$

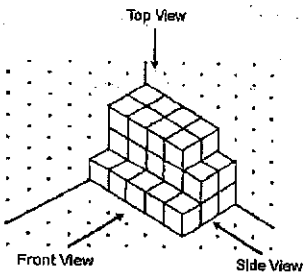
$= 165 \text{ cm}^2$

Ans: 165 cm²

2

For questions 3 to 5, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (16 marks)

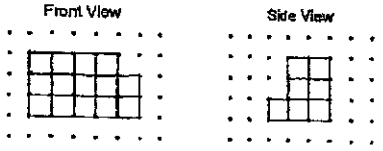
3 The figure below shows a solid made up of 1-m cubes.



(a) Find the volume of the solid.

Ans: (a) 33 m³ [1]

(b) Draw the front view and the side view of the solid on the grids below.



[2]

3

4 Sam, Abu and Ravi went jogging. They jogged 6100 m in total. Sam jogged 0.447 km more than Abu. Ravi jogged 0.8 km less than Sam.

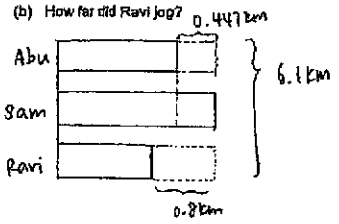
(a) Express the total distance they jogged in kilometres.

$6100 \text{ m} = (6100 \div 1000) \text{ km}$

$= 6.1 \text{ km}$

Ans: (a) 6.1 km [1]

(b) How far did Ravi jog?



$6.1 + 0.447 + 0.8 = 7.347$

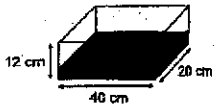
$7.347 \div 3 = 2.449$ (Sam)

$2.449 - 0.8 = 1.649$

Ans: (b) 1.649 km [3]

4

5 A rectangular tank, measuring 40 cm by 20 cm by 12 cm, contained 2400 ml of water.

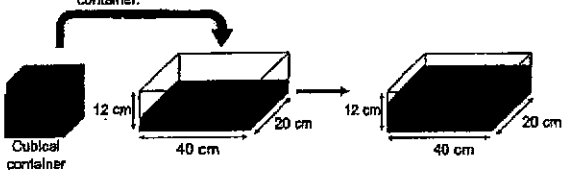


(a) What was the volume of the tank?

$12 \times 40 \times 20 = 9600$

Ans: (a) 9600 cm^3 [1]

(b) A cubical container was filled with water to the brim. Some of the water from the cubical container was poured into the tank until the tank was $\frac{3}{4}$ full. There were 1032 ml of water left in the cubical container.



What was the capacity of the cubical container?
Give your answer in ℓ.

$\frac{3}{4} \times 9600 = 7200$ (Amount of water in the tank)

$7200 - 2400 = 4800$ (Water poured in)

$4800 + 1032 = 5832$ (Vol. of water in the cubical container)

$5832\ ml = (5832 \div 1000)\ \ell$

$= 5.832\ \ell$

Ans: (b) 5.832 ℓ [3]

6 The table below shows the charges for sending parcels.

Mass of parcel	Charge	
Up to 3 kg	$10	
Up to 5 kg	$18	
Up to 10 kg	$35	
More than 10 kg and up to 30 kg	First 10 kg	$35
	Every additional kilogram or less	$4.50

(a) Nancy sent two parcels with the mass of 4.6 kg and 12.5 kg. How much did she pay altogether?

4.6 kg parcel → $18 paid

12.5 kg parcel → up to 10 kg : $35

→ remaining $(12.5 - 10 = 2.5)$ kg : $4.50 \times 3 = \$13.50$

$18 + 35 + 13.5 = 66.5$ (total)

Ans: (a) $66.50 [2]

(b) Mrs Siva wants to send 35 kg of rice to her shop. As she cannot send any parcel with mass above 30 kg, she decides to pack them into 2 smaller parcels. What is the least possible amount of money she must pay to send her rice?

35 kg split

10 kg → $35

25 kg

First 10 kg : $35

Next 15 kg : $15 \times 4.50 = 67.5$

Total = $35 + 67.5 = 102.5$

Total for 35 kg parcel = $102.5 + 35 = 137.5$

Ans: (b) $137.50 [3]

End of Paper