

**Nanyang Primary School
Primary 5
Mathematics
Term 2 Weighted Assessment**

Name: _____ ()

Marks:

Class: Primary 5 ()

/20

Date: _____

Parent's Signature: _____

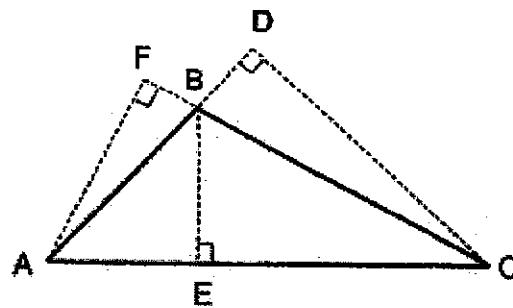
Duration: 45 minutes

The use of an approved calculator is allowed.

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

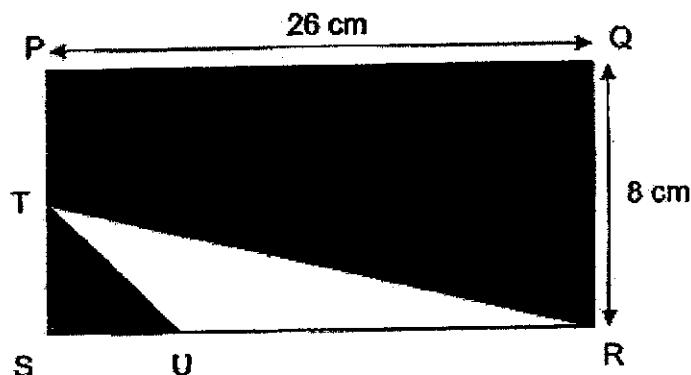
Questions 1 to 2 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (4 marks)

- 1 In the figure below, ABC is a triangle. FBC and ABD are straight lines. Name the base of triangle ABC given its height is AF.



Ans: _____

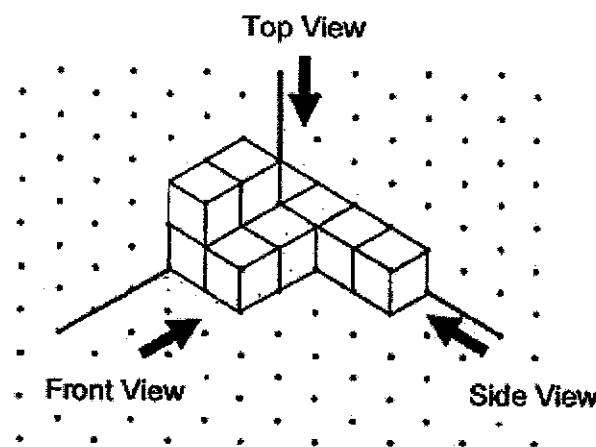
- 2 In the figure below, PQRS is a rectangle. T is the midpoint of PS. U is a point on SR. TS = SU, PQ = 26 cm and QR = 8 cm. Find the total area of the shaded parts.



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-cm cubes.

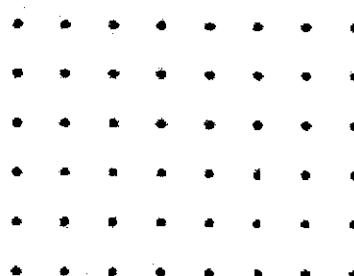


- (a) How many more 1-cm cubes does Peter need to add to the solid to make it into a 4-cm cube?

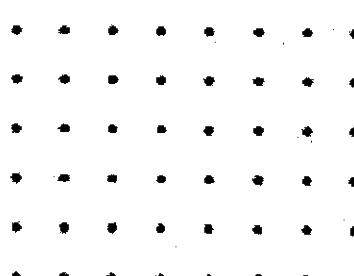
Ans: (a) _____ [1]

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

Front View

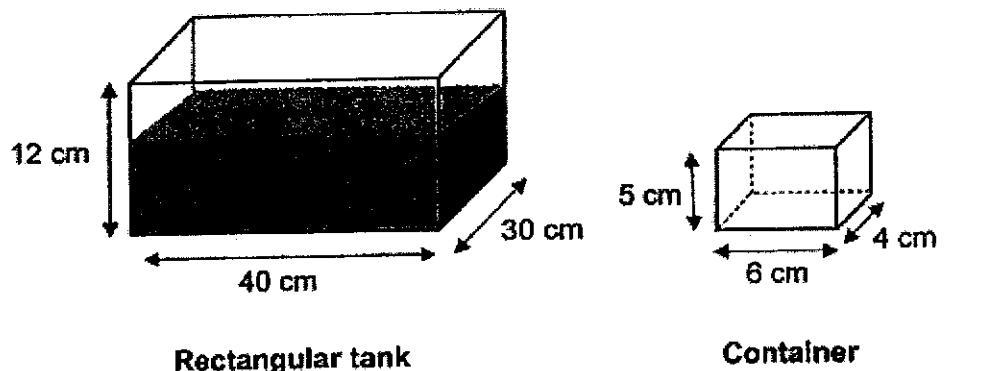


Side View



[2]

- 4 A rectangular tank measuring 40 cm by 30 cm by 12 cm is $\frac{3}{4}$ -filled with water. Rajan poured water from the rectangular tank into identical empty containers to the brim until the rectangular tank became $\frac{1}{3}$ -filled with water. Each container was 6 cm long, 4 cm wide and 5 cm high.



Rectangular tank

Container

- (a) What was the volume of water in the rectangular tank when it was completely filled with water?

Ans: (a) _____ [1]

- (b) How many such containers were completely filled with water?

Ans: (b) _____ [3]

- 5 The mass of a box with 40 identical markers is 1640 g.
- (a) What is the mass of 40 such markers including the box in kilograms?

Ans: (a) _____ [1]

- (b) The mass of the same box when filled with 20 identical pens is 0.83 kg. The mass of one such marker is twice the mass of one such pen. What is the mass of the empty box in kilograms?

Ans: (b) _____ [3]

- 6 The table shows the prices of muffins and cookies at Marvel Cafe and Simply Cafe.

Item	Marvel Cafe	Simply Cafe
Muffin	\$4.00	\$3.20
Cookie	\$1.60	\$2.00

- (a) Mrs Lim bought 16 muffins and 20 cookies from Simply Cafe. How much did she pay in all?

Ans: (a) _____ [2]

- (b) John bought muffins and cookies from Marvel Cafe. Sally bought muffins and cookies from Simply Cafe. Both John and Sally bought the same number of muffins. John bought 5 cookies and Sally bought 8 cookies. They paid the same amount of money. How many muffins did each of them buy?

Ans: (b) _____ [3]

End of Paper

Mathematics Primary School
Primary 3
Basic Mathematics
Term 2 Progress Assessment

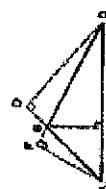
Name _____	Date _____	Teacher's Signature _____
Class Primary 3	1	120

Date

Teacher's Signature

Progress Assessment

- The use of unapproved calculator is allowed.
Please sign my name. No mathematics paper or math book may be brought into the examination room.
I have read the instructions in the examination room carefully. I understand the examination room is a quiet place. I will not talk or shout during the examination.
I have signed the declaration below to indicate that I have read and understood the instructions.



The mass of 1000 small rectangular markers is 1.6 kg.

$$1.6 \text{ kg} \div 1000 = 1.6 \text{ g}$$

- All the marks in this section must be filled in the boxes below.
- John spent \$1.80 on 100g of apples. He also bought 100g of oranges for \$1.20. The total cost of fruit was \$3.00. How much did he spend on 100g of mangoes?

Apples	\$1.80	Oranges	\$1.20
Mangoes	\$1.00		

$$\begin{aligned} \text{Mass of 100g mangoes} &= 1.80 + 1.20 - 3.00 \\ &= 0.80 \text{ g} \\ \text{Mass of 900g mangoes} &= 0.80 \times 9 = 7.2 \text{ g} \\ \text{Mass of 900g mangoes} &= 0.81 \text{ g} + 0.27 \text{ g} \\ &= 0.56 \text{ g} \end{aligned}$$

Since the answer is 0.56g, the answer is 56.

For questions 8 to 10, calculate the area of the shaded region. The area of each square is 1 cm². The area of each rectangle is 2 cm².



$$W.L = 4 \text{ cm} \times 2 \text{ cm}$$

$$= 8 \text{ cm}^2$$

$$\text{Area of } \triangle = \frac{1}{2} \times 4 \text{ cm} \times 4 \text{ cm}$$

$$= 8 \text{ cm}^2$$

$$\text{Area of } \triangle PQRS = \frac{1}{2} \times 2 \text{ cm} \times 4 \text{ cm}$$

$$= 4 \text{ cm}^2$$

$$= 208 \text{ cm}^2$$

$$= 164 \text{ cm}^2$$

4. A rectangular tank measuring 6 cm by 8 cm by 12 cm is filled with water. If the water level is reduced by 1 cm, the volume of water left in the tank is 144 cm³. Find the capacity of the tank in litres.



5. The figure below shows a right-angled triangular prism.

- (a) Calculate the volume of water needed to fill the tank when it is completely full with water.

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 12 \text{ cm} \\ &= 96 \text{ cm}^3 \end{aligned}$$

- (b) When the tank is completely full with water,

$$\begin{aligned} \text{Volume of water} &= 96 \text{ cm}^3 \\ &= 96 \text{ litres} \end{aligned}$$

- (c) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 10 \text{ cm} \\ &= 96 \text{ cm}^3 \end{aligned}$$

- (d) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 8 \text{ cm} \\ &= 76.8 \text{ cm}^3 \end{aligned}$$

- (e) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 6 \text{ cm} \\ &= 72 \text{ cm}^3 \end{aligned}$$

- (f) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 4 \text{ cm} \\ &= 48 \text{ cm}^3 \end{aligned}$$

- (g) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 2 \text{ cm} \\ &= 48 \text{ cm}^3 \end{aligned}$$

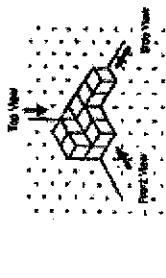
- (h) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times 0 \text{ cm} \\ &= 0 \text{ cm}^3 \end{aligned}$$

- (i) When the tank is partially filled with water,

$$\begin{aligned} \text{Volume of water} &= \frac{1}{2} \times 6 \text{ cm} \times 8 \text{ cm} \times (-2) \text{ cm} \\ &= -48 \text{ cm}^3 \end{aligned}$$

6. A rectangular tank measuring 10 cm by 12 cm by 15 cm is filled with water. If the water level is reduced by 2 cm, the volume of water left in the tank is 1440 cm³. Find the capacity of the tank in litres.



- (a) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 13 \text{ cm} \\ &= 1560 \text{ cm}^3 \end{aligned}$$

- (b) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 11 \text{ cm} \\ &= 1320 \text{ cm}^3 \end{aligned}$$

- (c) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 9 \text{ cm} \\ &= 1080 \text{ cm}^3 \end{aligned}$$

- (d) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 7 \text{ cm} \\ &= 840 \text{ cm}^3 \end{aligned}$$

- (e) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 5 \text{ cm} \\ &= 600 \text{ cm}^3 \end{aligned}$$

- (f) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 3 \text{ cm} \\ &= 360 \text{ cm}^3 \end{aligned}$$

- (g) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 1 \text{ cm} \\ &= 120 \text{ cm}^3 \end{aligned}$$

- (h) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-1) \text{ cm} \\ &= -120 \text{ cm}^3 \end{aligned}$$

- (i) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-3) \text{ cm} \\ &= -360 \text{ cm}^3 \end{aligned}$$

- (j) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-5) \text{ cm} \\ &= -600 \text{ cm}^3 \end{aligned}$$

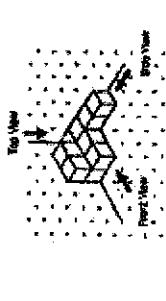
- (k) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-7) \text{ cm} \\ &= -840 \text{ cm}^3 \end{aligned}$$

- (l) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-9) \text{ cm} \\ &= -1080 \text{ cm}^3 \end{aligned}$$

7. A rectangular tank measuring 10 cm by 12 cm by 15 cm is filled with water. If the water level is reduced by 2 cm, the volume of water left in the tank is 1440 cm³. Find the capacity of the tank in litres.



- (a) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 13 \text{ cm} \\ &= 1560 \text{ cm}^3 \end{aligned}$$

- (b) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 11 \text{ cm} \\ &= 1320 \text{ cm}^3 \end{aligned}$$

- (c) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 9 \text{ cm} \\ &= 1080 \text{ cm}^3 \end{aligned}$$

- (d) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 7 \text{ cm} \\ &= 840 \text{ cm}^3 \end{aligned}$$

- (e) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 5 \text{ cm} \\ &= 600 \text{ cm}^3 \end{aligned}$$

- (f) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 3 \text{ cm} \\ &= 360 \text{ cm}^3 \end{aligned}$$

- (g) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times 1 \text{ cm} \\ &= 120 \text{ cm}^3 \end{aligned}$$

- (h) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-1) \text{ cm} \\ &= -120 \text{ cm}^3 \end{aligned}$$

- (i) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-3) \text{ cm} \\ &= -360 \text{ cm}^3 \end{aligned}$$

- (j) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-5) \text{ cm} \\ &= -600 \text{ cm}^3 \end{aligned}$$

- (k) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-7) \text{ cm} \\ &= -840 \text{ cm}^3 \end{aligned}$$

- (l) Calculate the volume of water left in the tank when the water level is reduced by 2 cm.

$$\begin{aligned} \text{Volume of water} &= 10 \text{ cm} \times 12 \text{ cm} \times (-9) \text{ cm} \\ &= -1080 \text{ cm}^3 \end{aligned}$$

