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Provincial Department of Education - NWP

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Third Term Test - Grade 08 - 2023

Mathematics - I

Time: 02 Hours

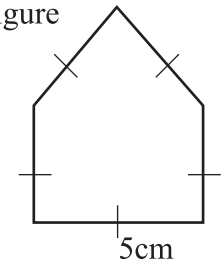
Name / Index No.

- **Answer all the questions from 1 to 20 on the paper itself.**
- **Each question carries 2 marks.**

01. Write the first four terms of number pattern where the general term is 2n

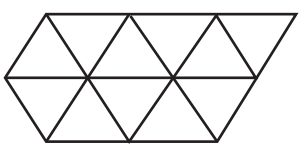
02. Simplify $2x - 3y - 5x + y$

03. Find the Perimeter of the figure

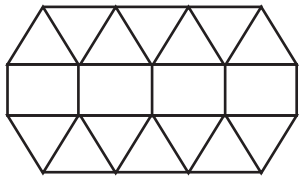


04. Simplify $\frac{3}{4} \times 1\frac{3}{5}$

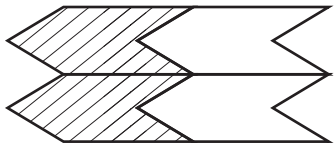
05. Underline the Pure tesselations from the diagrams given below



(i)



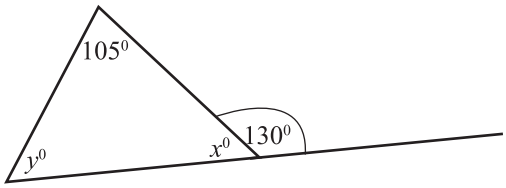
(ii)



(iii)

06. Simplify $(x^3)^2$

07. Find the value of x and y using the information given in tghe diagram

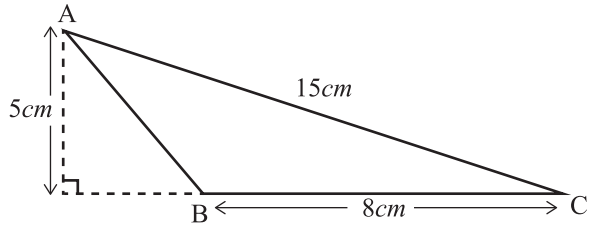


08. Mass of an one comb of banana is 1.25kg. Find the mass of 12 such bannana combs.

09. Solve $2x - 1 = 7$

10. Rs. 8000/- was divided between Vishwa and Suranimala in the ratio 9:7. Find the amount received by Vishwa.

11. Find the area of the triangle ABC using the informations given in the diagram.

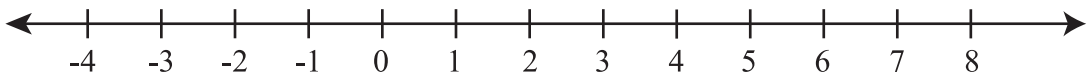


12. Set P = { 2, 3, 5, 7 }

i. Write the value of n(p)

ii. 3 ..... P Fill the blank using suitable symbol $\in$ or $\notin$

13. Respresent the inequality $-2 < x \leq 2$ in below number line



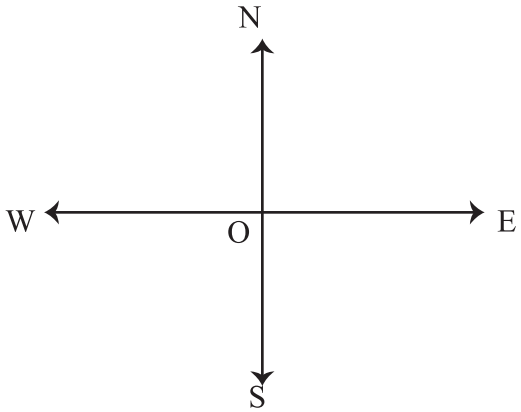
14. There are 20 boys out of 50 students in a class. Find the Percentage of girls of this class.

15. Below statements are related to the circle. put (✓) to the true statements and Put (✗) to the false statements.

Area surrounded by two radius of a circle and a arc segment is called as a central Segment.	
Circle divides as major segment and minor segment by the diameter	
Sum of two radii equals to the diameter	

16. Capasity of a tank is 15*l* and it is filled up to 7*l* 250*ml* from fuel. Find the amount of fuel need to fill the tank.

17. Mark thge palce which is located 25m away from a bearing of **S 50^0 W** from Point O.



18. Below details are related to the attendance of students in a certain class within 10 days.

25, 42, 32, 28, 25, 40, 38, 24, 25, 35

Find the,

i. Mode of the attendance

ii. Median of the attendance

---

19. Distance between two cities is 4cm in a map drawn at the scale 1:50000. Find the actual distance between two cities.

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20. A bag contains 5 red beads and 3 blue beads. If a bead taken out randomly Find the probability of getteing a blue bead.

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Third Term Test - Grade 08 - 2023

Mathematics - II

Name / Index No.

*** Answer the first question and four other questions.**

*** First question carries 16 marks and other questions carry 11 marks each.**

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01. a) Using the knowledge you gain from the activity you have done with your teacher related to creating triangle using 3cm, 4cm, 5cm, 7cm, 9cm long ekels, Fill in the below table by copying it is your answer sheet. Identify the instance where you can create triangles using 03 pieces of ekel.

Length of each ekel (cm)	Sum of the length of 2 pieces of ekel (cm)	Length of 03rd ekel	Relationship between 2nd 3rd columns	If can create a triangle (✓) If can not create a triangle (×)
3, 4, 5	7 9 8	5 3 4	7 > 5	.....
3, 4, 9	7	9 3 4	7 < 9	× .....

(6 Marks)

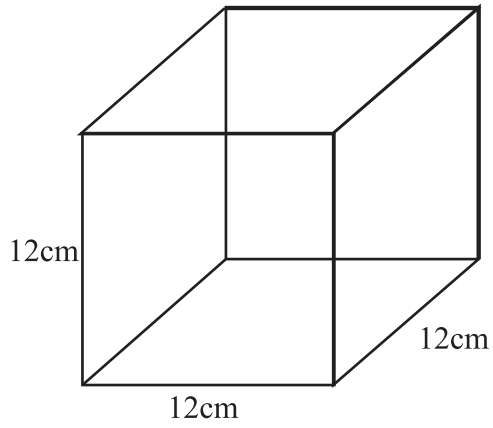
b) i. Draw the triangle ABC, Where AB = 5cm, BC = 7cm and AC = 8cm (3 Marks)

ii. Measure and write the value of angle $A\hat{B}C$ (2 Marks)

iii. Find the sum of other two angles without measuring (3 Marks)

iv. Write the theorem used to obtain the answer in (iii) (2 Marks)

02. Below diagram shows a cubic shape fish tank without the top.



i. Find the outside surface area of the fish tank. (3 Marks)

ii. Find the capacity of the tank (2 Marks)

iii. Find the valume of the water need to fill the tank in *l* and *ml* (3 Marks)

iv. Find the height of the water level when the tank is filled with 1*l* 152*ml* of water (3 Marks)

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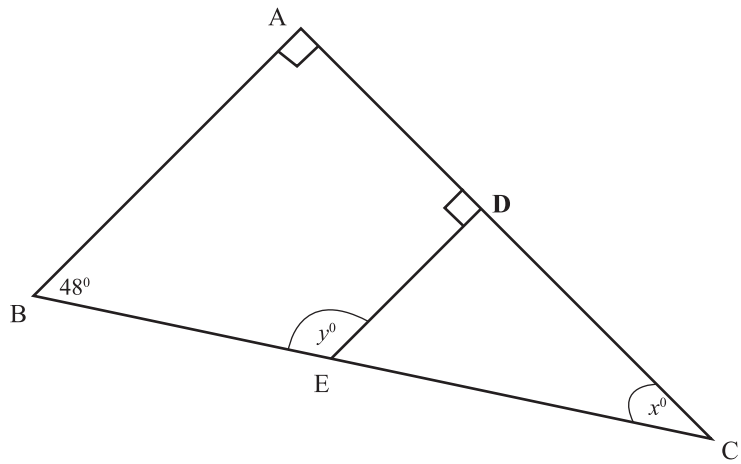
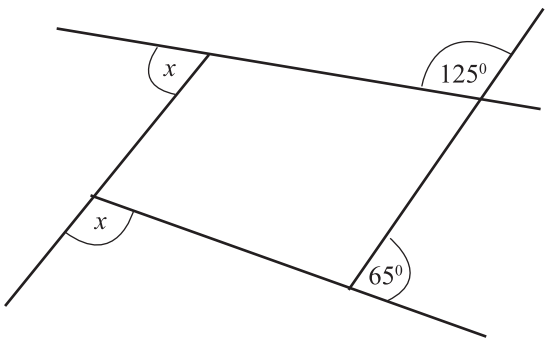
03. a) i. Find the value of x^0 and y^0 using the information given in the diagram below. (4 Marks)

ii. Write a pair of supplimentary adjecent angles (2 Marks)

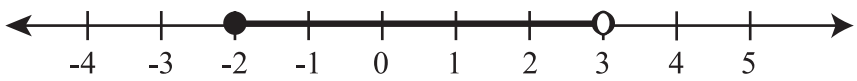


b) i. Write the sum of exterior angles of any polygon (2 Marks)

ii. Find the value of x (3 Marks)

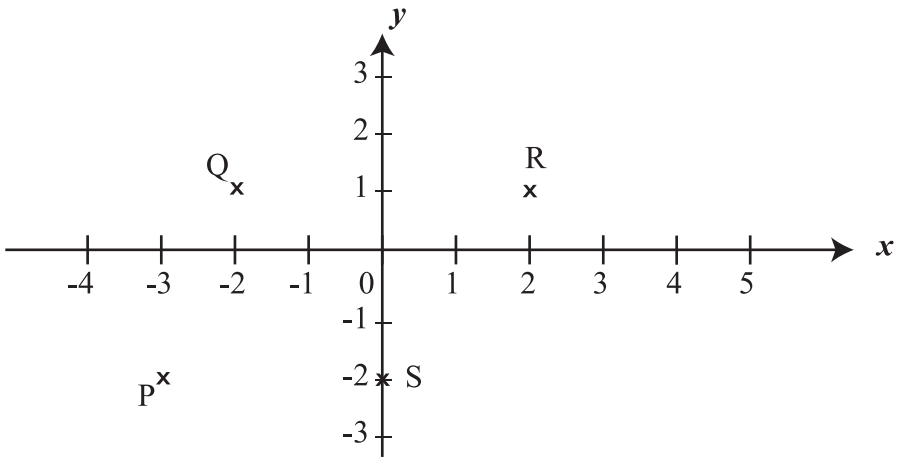


04. a) i. Write the inequality represented on the below number line (2 Marks)



ii. Mark the solutions (Whole numbers) of the inequality $x \geq -2$ on a number line and write the minimum positive whole number for x (3 Marks)

b) i. Write the co-ordinates of P, Q, R and S (4 marks)



ii. Draw the straight line $x = -2$ on a suitable co-ordinate plane. (2 Marks)

---

05. a) Below stem and leaf diagram represent the lengths of few piecees of wires to the nearest cm.

i. Find the number of total pieces of wires used to measure . (2 Marks)
ii. Find the range of the data (2 Marks)
iii. Find the median. (2 Marks)
iv. Find the mode (2 Marks)
v. How many wire pieces are there which are long than the mode and write it as a percentage. (3 Marks)

Stem	Leaf
10	0, 4
11	1, 3, 4, 9
12	1, 2, 4, 7, 8
13	1, 3, 3, 5, 6, 9
14	2, 5, 6, 7, 8
15	1, 2, 4

06. a) Simplify

i. $3\frac{3}{7} \times 2\frac{5}{8}$ (2 Marks)

ii. $18 \div 7\frac{1}{5}$ (2 Marks)

b) Certain amount of money was divided among Nirosh and Aravinda in ratio 2:3 and Aravinda and Ahamad in ratio 4:1 Ahamad got Rs. 1200/-

i. Find the common ratio between Nirosh, Aravinda and Ahamad. (3 Marks)

ii. Find the total amount divided among these three (2 Marks)

iii. Find the amount Aravinda received (2 Marks)

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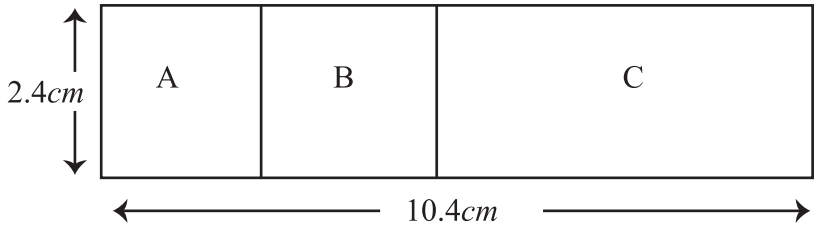
07. a) Below diagram shows a scale diagram of a base of building. This is drawn in the ratio 1:500



A - Square shape office room
B/C - Class rooms with equal lengts.

i. Find the actual length of a class room. (3 Marks)

ii. Find the area of a class room. (3 Marks)

b) Krishna walks 600m **E 30^0 S** from his house to the town. Then he walks 20m **N 25^0 E** from town to post office Draw a sketch to represent above data. (5 Marks)

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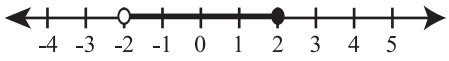
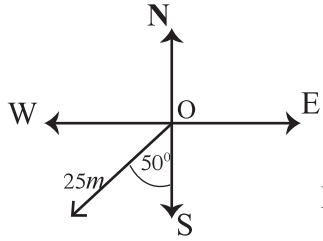
Mathematics

Answers

I කොටස

1.	2, 4, 6, 8		2
2.	$-3x - 2y$		2
3.	5 x 5 $25cm$	1 1	2
4.	$\frac{\cancel{3}}{\cancel{4}} \times \frac{\cancel{8}^{2}}{5}$ $\frac{6}{5} = 1\frac{1}{5}$	1 1	2
5.	i and iii		2
6.	x^{3x2} x^{6}	1 1	2
7.	$x = 50^0$ $y = 25^0$	1 1	2
8.	1.25 x 12 15kg	1 1	2
9.	$2x - 1 + 1 = 7 + 1$ $\frac{2x}{2} = \frac{8}{2}$ $x = 4$	1 1	2
10.	$\frac{\cancel{8000}^{500}}{\cancel{16}} \times 9$ රු. 4500	1 1	2
11.	$\frac{1}{2} \times 8 \times 5$ $20cm^2$	1 1	2
12.	i. n(p) = 4 ii. 3 $\in$ P	1 1	2
13.			2
14.	$\frac{30}{50} \times 100\ \%$ 60%	1 1	2
15.	✓ × ✓		2
16.	15 000 – 7 250 for Substraction 7*l* 750*ml*	1 1	2
17.	 Angle Distance	1 1	2
18.	i. 25 ii. 30	1 1	2
19.	1cm ⟶ 500m 4 x 500 = 2000m 2km	1 1	2
20.	$\frac{3}{8}$		2

II කොටස

1. a)

$9 > 3$
$8 > 4$ ✓ — 3

13 3 $13 > 3$
12 4 $12 > 4$ — 3 — ⑥

b) i. Draw the Triangle — 3

ii. Measure and write the value — 2

iii. 180^0 - value = Answer
Write the some of other two angles — 3

iv. Theorem used to obtain — 2 — ⑩ [16]

2. i.

$12 \times 12 = 144$ — 1
144×6 — 1
$864\ cm^2$ — 1 — ③

ii.

144×12 — 1
$1728\ cm^3$ — 1 — ②

iii.

$1728ml$
$1l\ 728\ ml$ — ③

$\frac{1152}{144} = 8cm$ — ③ [11]

3. a) i.

$x = 90^0 - 48^0$ — 1
$= 42^0$ — 1
$y = 180^0 - 48^0$ — 1
$= 132^0$ — 1 — ④

ii. $\hat{ADE}$ and $\hat{EDC}$ — 2 — ②

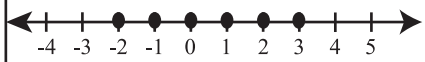
b) i.

360^0 2 — 2

$2x + 190 = 360^0$ — 1
$2x = 170^0$ — 1
$x = 85^0$ — 1 — ③ [11]

4. a) i. $-2 \leq x < 3$ — 2 — ②

ii.

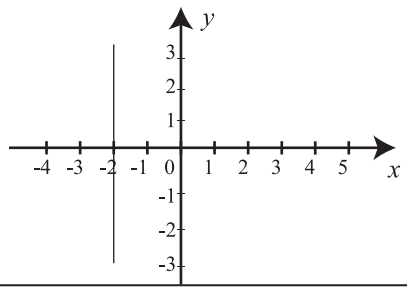


2

b) i. 1 — ③

P (-3, -2)
Q (-2, 1)
R (2, 1)
S (0, -2) — 4 — ④

ii.



2 — ② [11]

5. a) i. 25 — 2 — ②

ii. 154 - 100
54 — 2 — ②

iii. $\frac{26}{2}$ = 13 th datum — 1
133 — 1 — ②

iv. 133 — 2 — ②

v. 11 — 1
$\frac{11}{25} \times 100\%$ — ①
44% — 1 — ③ [11]

6. a) i.

$\frac{\cancel{24}^{3}}{\cancel{7}_{1}} \times \frac{\cancel{21}^{3}}{\cancel{8}_{1}}$ — 1
9 — 1 — ②

ii.

$18 \div \frac{36}{5}$
$\cancel{18}^{1} \times \frac{5}{\cancel{36}_{2}}$
$2\frac{1}{2}$ — 2 — 2

b) i.

Nirosha : Arawinda : Ahamad
2 : 3 :
4 : 1
8 : 12 : 3 — 3 — ③

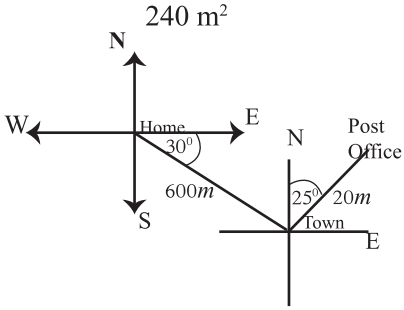
ii. $\frac{1200}{3} = 400$ — 1
400×23
9200/- — 1 — ②

400×12 — 1
4800/- — 1 — ② [11]

7. a) i. 1cm ⟶ 5m — 1
10.4
-2.4
$8.0 \div 2 = 4$ cm — 1
Actual Length = $4 \times 5 = 20$ m — 1 — ③

ii. Width $= 2.4 \times 5 = 120$ m — 1
Area 20×12 — 1
$240\ m^2$ — 1 — ③

b)



⑤ [11]