NAN HUA PRIMARY SCHOOL
NON-WEIGHTED ASSESSMENT 2 2023
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. The use of calculators is NOT allowed.

Name : _____ ( )

Class : 6 _____

Date : _____ Parent's Signature : _____

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

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1. Round 245 542 to the nearest thousand.

   (1) 245 000

   (2) 245 500

   (3) 246 000

   (4) 250 000

2. What is the value of $16 + (40 - 8) \div 4 \times 2$?

   (1) 6

   (2) 24

   (3) 32

   (4) 48

3. Which one of the following are common factors of 12 and 30?

   (1) 2 and 3

   (2) 2 and 5

   (3) 3 and 4

   (4) 4 and 6

4. Find $\frac{2}{7} \div \frac{5}{8}$

(1) $\frac{12}{35}$

(2) $\frac{5}{21}$

(3) $2\frac{11}{12}$

(4) $4\frac{1}{5}$

5. $\frac{3}{5} \times 12 = 3 \times \frac{3}{5} + \frac{3}{5} \div \square \times \frac{3}{5}$

(1) 5

(2) 8

(3) 9

(4) 4

6. Simplify the following algebraic expression.

$14 + 6a + 2 - 5a$

(1) $16 + 11a$

(2) $16 + a$

(3) $12 + 11a$

(4) $12 + a$

7. Simon started his revision at 11.55 a.m. He revised for 1 h 50 min. What time did Simon stop his revision?

(1) 1.05 a.m.

(2) 1.45 a.m.

(3) 1.05 p.m.

(4) 1.45 p.m.

8. The table below shows the number of coins saved by Natalie for 5 days.

Day	Number of coins saved	
	20-cent coins	50-cent coins
Monday	4	2
Tuesday	10	0
Wednesday	0	3
Thursday	5	5
Friday	8	1

On how many days was Natalie able to save at least $2?

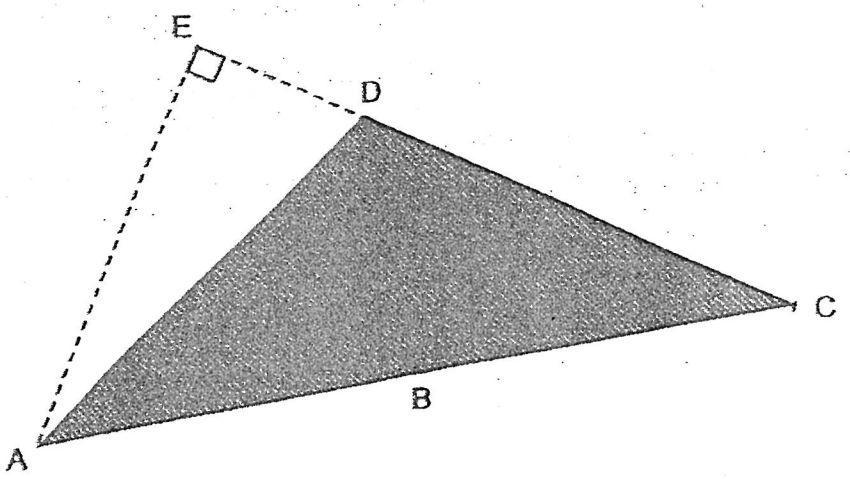
(1) 5

(2) 2

(3) 3

(4) 4

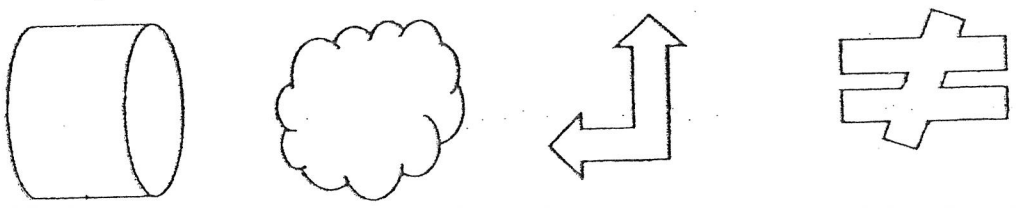
9.



From the figure above, which one of the following shows the correct base and height of triangle ACD?

	Base	Height
(1)	BD	AC
(2)	CD	AE
(3)	CE	AE
(4)	CD	BD

10. Which one of the following is a symmetric figure?



(1) (2) (3) (4)

11. What is the value of $21 + \frac{4y}{2}$ when $y = 6$?

(1) 22

(2) 24

(3) 26

(4) 33

12. At a carnival, the ratio of the number of adults to the number of children is 7 : 9. The number of boys is $\frac{1}{5}$ the number of girls. What is the ratio of the number of girls to the number of adults?

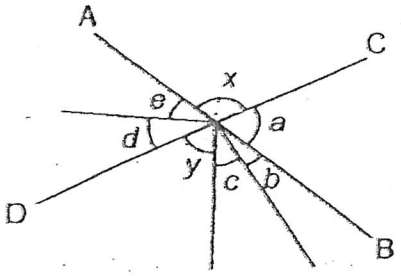
(1) 1 : 7

(2) 5 : 7

(3) 3 : 14

(4) 15 : 14

13. In the figure below not drawn to scale, AB and CD are straight lines. Find the difference between $\angle x$ and $\angle y$.



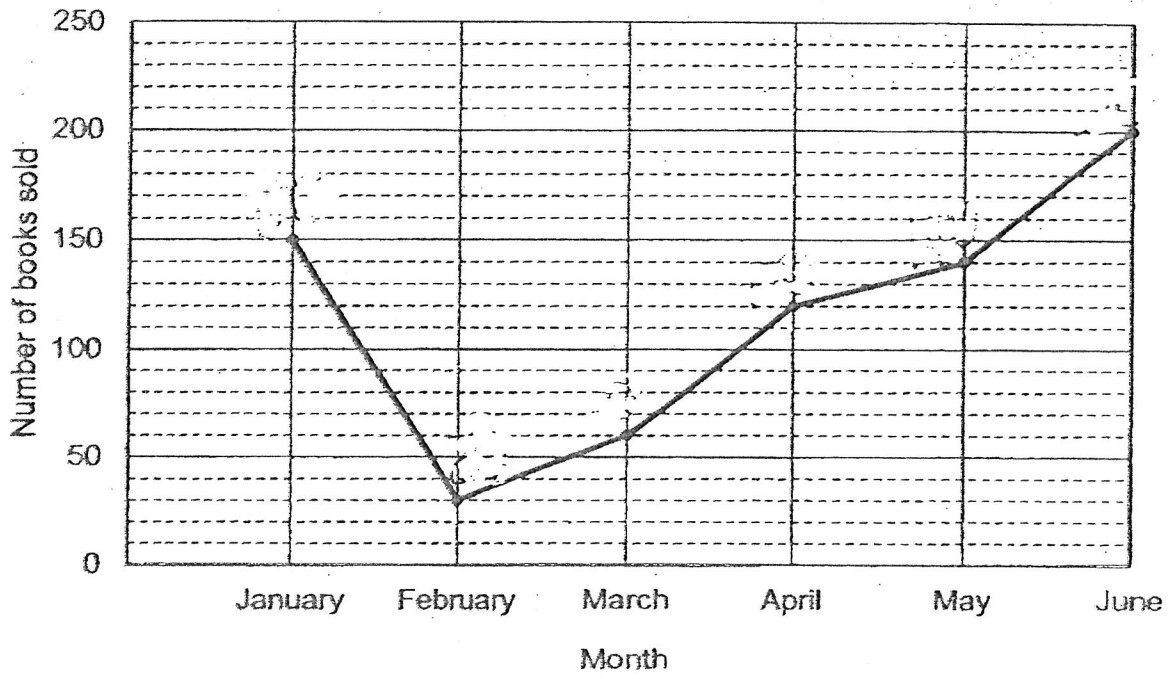
(1) $\angle a - \angle d$

(2) $\angle b + \angle c$

(3) $\angle d + \angle e$

(4) $\angle a - \angle e$

14. The line graph below shows the number of books sold by a shop from January to June in 2015.



What was the average number of books sold per month from February to April in 2015?

(1) 35

(2) 70

(3) 75

(4) 210

15. The table below shows the number of students in 6A. Some of the information is missing.

	With CCA	Without CCA	Total
Boys	10		
Girls	15		20
Total			36

Based on the given information, which of the following statements is correct?

(1) $\frac{1}{5}$ of the students with a CCA are boys.

(2) 25% of the girls are without any CCA.

(3) There are more girls than boys who are without any CCA.

(4) The ratio of the number of girls to the number of boys in 6A is 4 : 5.

NAN HUA PRIMARY SCHOOL
NON-WEIGHTED ASSESSMENT 2 2023
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET B)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of calculators is NOT allowed.

Marks Obtained

Paper 1	Booklet A		/ 45
	Booklet B		
Paper 2			/ 55
Total			/ 100

Name : _____ ( )

Class : 6 _____

Date : _____ Parent's Signature : _____

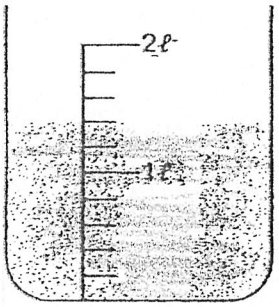
Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. [5 marks]

Do not write in this space

16. Find the value of $18 \div \frac{4}{5}$

Ans : _____

17. How much water is there in the beaker?



Ans : _____ mℓ

18. Write down the common multiple of 3 and 7 that is greater than 40 but smaller than 50.

Ans: _____

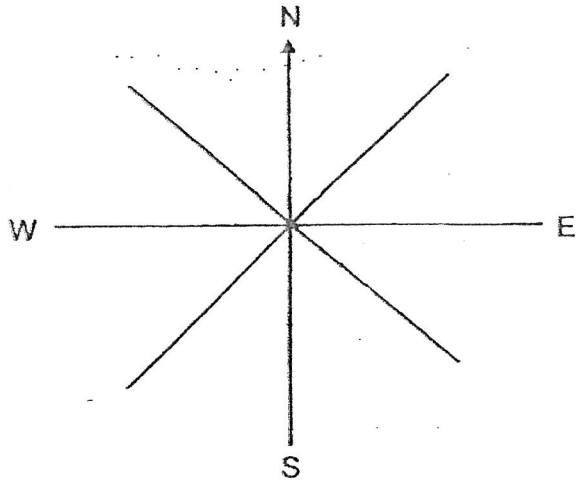
Subtotal	/ 3

19. 3 children shared $\frac{2}{3}$ of a pizza equally. What fraction of a pizza did each child get?

Do not write in this space

Ans : _____

20. Jimmy is facing west now. When he makes a $\frac{3}{4}$ – turn in a clockwise direction and another $\frac{1}{4}$ – turn in an anticlockwise direction, where will Jimmy be facing?



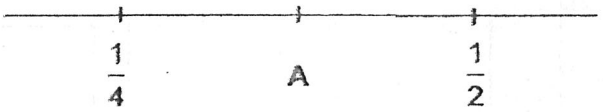
Ans : _____

Subtotal	/ 2

Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For each questions which require units, give your answers in the units stated. [20 marks]

Do not write in this space

21. A is a fraction that lies exactly between $\frac{1}{4}$ and $\frac{1}{2}$. What is A?



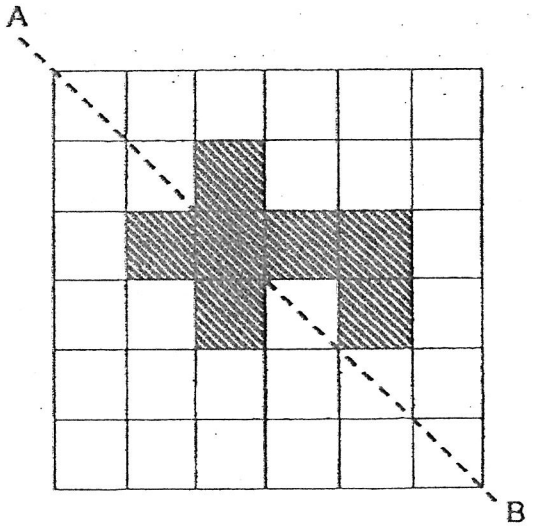
Ans : _____

22. Draw a triangle ABC such that AB = BC = 5 cm and ∠ ABC = 80°

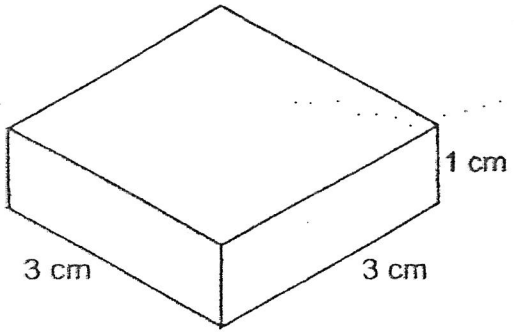
Subtotal	/ 4

23. There are 7 shaded squares in the figure. Shade 2 more squares to form a symmetric figure with AB as the line of symmetry.

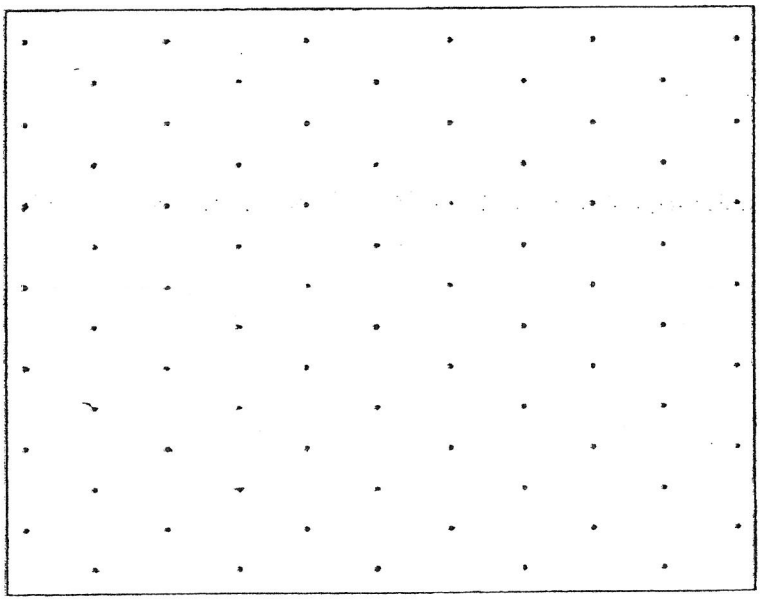
Do not write in this space



24. The figure below shows Cuboid A. Draw a cuboid with a volume twice that of Cuboid A on the isometric grids provided.



Cuboid A



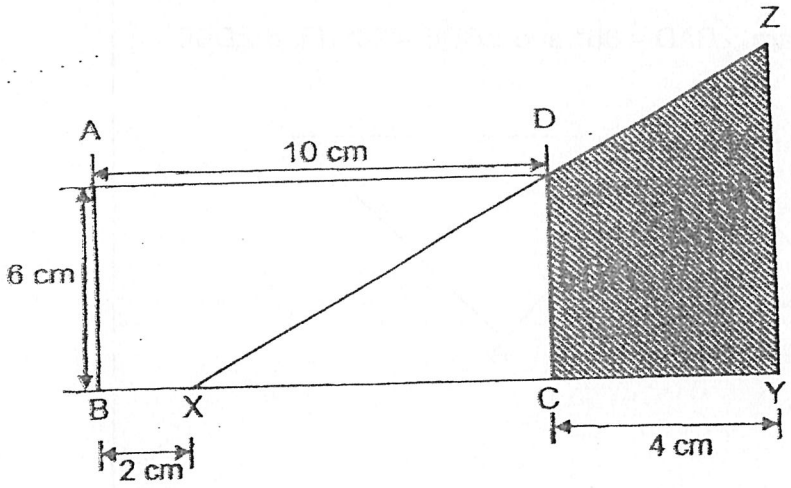
Subtotal	/ 4

Do not write in this space

25. Mdm Lim made $\frac{7}{8}$ ℓ of orange drink. She poured the orange drink into glasses of capacity $\frac{1}{5}$ ℓ eacn. All the glasses were completely filled except for 1 glass. How much orange drink was in the glass that was not completely filled?

Ans : _____ ℓ

26. In the figure below not drawn to scale, Rectangle ABCD has the same area as Triangle XYZ. Find the area of the shaded part.



Ans : _____ cm^2

Subtotal	/ 4

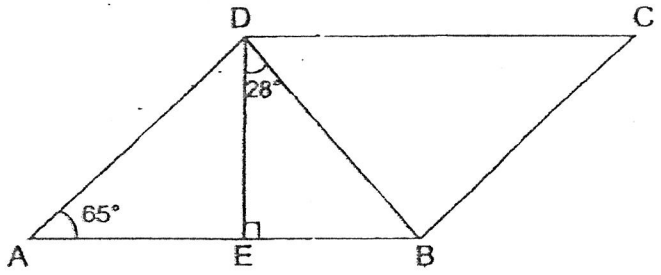
27. Madam Fatimah baked some cupcakes. After selling $\frac{1}{4}$ of the cupcakes, she packed the remaining cupcakes into 12 boxes. There were $4w$ cupcakes in each box. How many cupcakes did Madam Fatimah bake in all?

Do not write in this space

Ans : _____

28. The figure below is not drawn to scale.

ABCD is a parallelogram. $\angle BAD = 65°$ and $\angle BDE = 28°$. Find $\angle DBC$.



Ans: _____ °

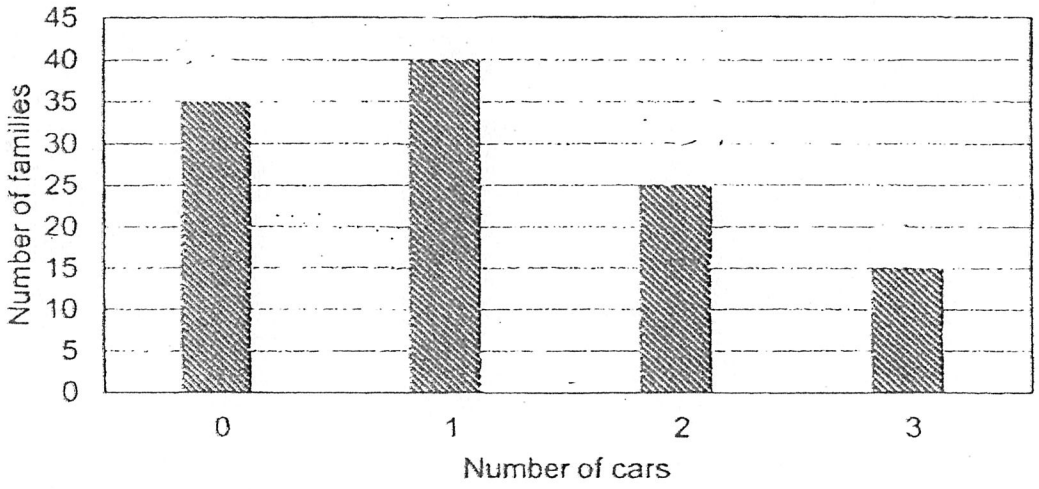
Subtotal	/ 4

29. Bowen has some 10-cent and 50-cent coins in his savings box. There are 3 fewer 50-cent coins than 10-cent coins in the box. The total value of the coins is $5.70. How many 10-cent coins does Bowen have?

Do not write in this space

Ans: _____ ten-cent coins

30. The bar graph shows the number of cars owned by families living in an estate.



Each of the statements below is either true, false or impossible to tell from the information given. For each statement, put a tick (√) to indicate your answer.

Statement	True	False	Not possible to tell
40 families own at least 2 cars.			
50% of the total number of cars are owned by families with only 1 car.			

END OF PAPER 1

Subtotal	/ 4

NAN HUA PRIMARY SCHOOL
NON-WEIGHTED ASSESSMENT 2 2023
PRIMARY 6

MATHEMATICS
Paper 2

Total Time for Paper 2: 1 hour 30 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
6. Do not use correction fluid/tape or highlighters.
7. The use of an approved calculator is allowed.

Marks Obtained

Total	Max Mark
	55

Name : _____

Form Class : 6 ____( ) **Teaching Group : 6M ____( )**

Date : 12 May 2023 **Parent's Signature :** _____

This booklet consists of 16 printed pages

Questions **1** to **5** carry 2 marks each. Show your workings clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1 The table shows the results of 4 runners in a 4 x 100m relay.

Find the average time taken by the runners.

Name	Timing
Andy	10 s
Benjamin	15 s
Charlie	13 s
Daniel	12 s

Ans: _____ s

2 The ratio of the number of apples to the number of pears at a fruit stall was 9 : 4. The fruit seller sold $\frac{2}{3}$ of the apples and $\frac{3}{4}$ of the pears. What was the ratio of the number of apples left to the number of pears left?

Ans: _____

3 The table below shows the parking charges at ABC car park.

Do not write in this space.

Parking charges at ABC Car Park	Amount
First hour	$1.80
Every additional half an hour	$0.60

Mr Tan parked his car for 9 hours at ABC car park. How much did he pay?

Ans: $ _____

4 Miss Tan started a fixed deposit account with $30 000 in a bank. The interest rate is 4% per year. How much would she have in her account at the end of one year?

Ans: $ _____

(Go on to the next page)

5 Cheryl spilled some ink on her Mathematics quizzes results slip as shown below.

Do not write in this space

Topic	Score
Fractions	88
Percentage	6
Ratio	2
Circles	75
Total score	318

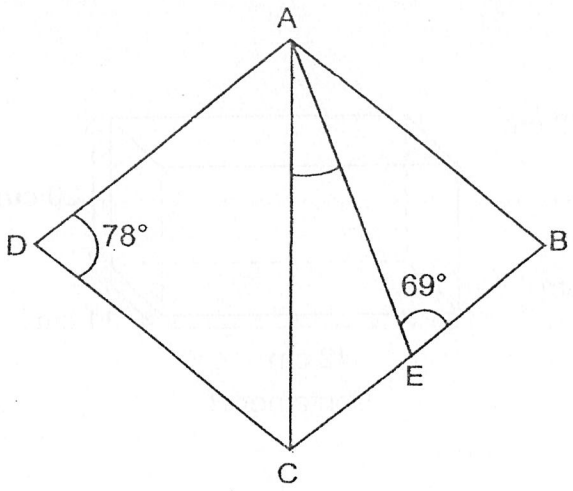
What is the difference between Cheryl's score for her Percentage quiz and her Ratio quiz?

Ans: _____

For questions **6** to **17**, 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. (45 marks)

Do not write in this space

6 In the figure below, ABCD is a rhombus. Find ∠CAE.



Ans: _____ [3]

7 Container A measuring 45 cm by 22 cm by 28 cm was $\frac{4}{7}$ filled with water.

The water was then poured into another empty container, Container B, until it was filled to the brim. What was the volume of water left in Container A? Give your answer in litres.

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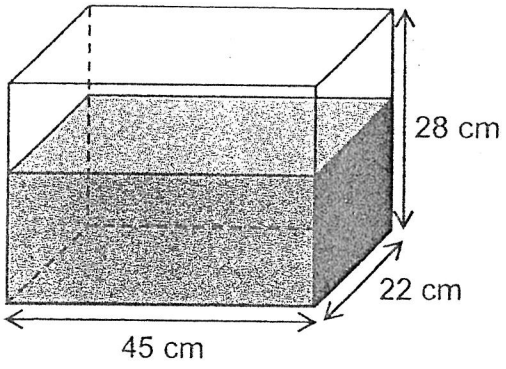
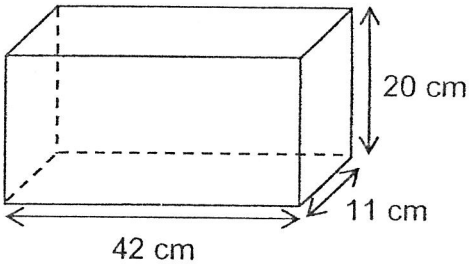


Container A

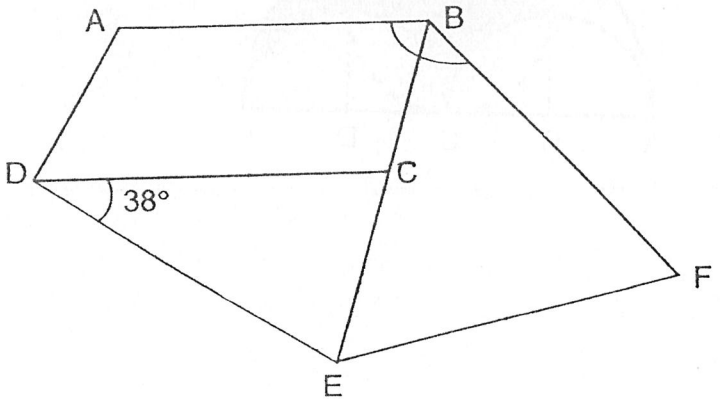


Container B

Ans: _____ [3]

8 In the figure below, ABCD is a trapezium where AB is parallel to CD. CDE is an isosceles triangle where DE = DC. BEF is an equilateral triangle. Find ∠ABF.

Do not write in this space



Ans: _____ [3]

9 The figure shows three semicircles and a circle.

Given AB = BC = CD = DE = 5 cm, find the perimeter of the shaded part. Leave your answer in terms of π.

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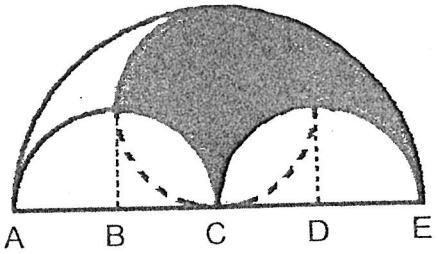

Ans: _____ [3]

10 A rectangular tank contained some water at first. A tap was then turned on to fill the tank completely with water. It was turned off at the end of 90 minutes. The graph below shows the amount of water in the tank at the end of 90 minutes.

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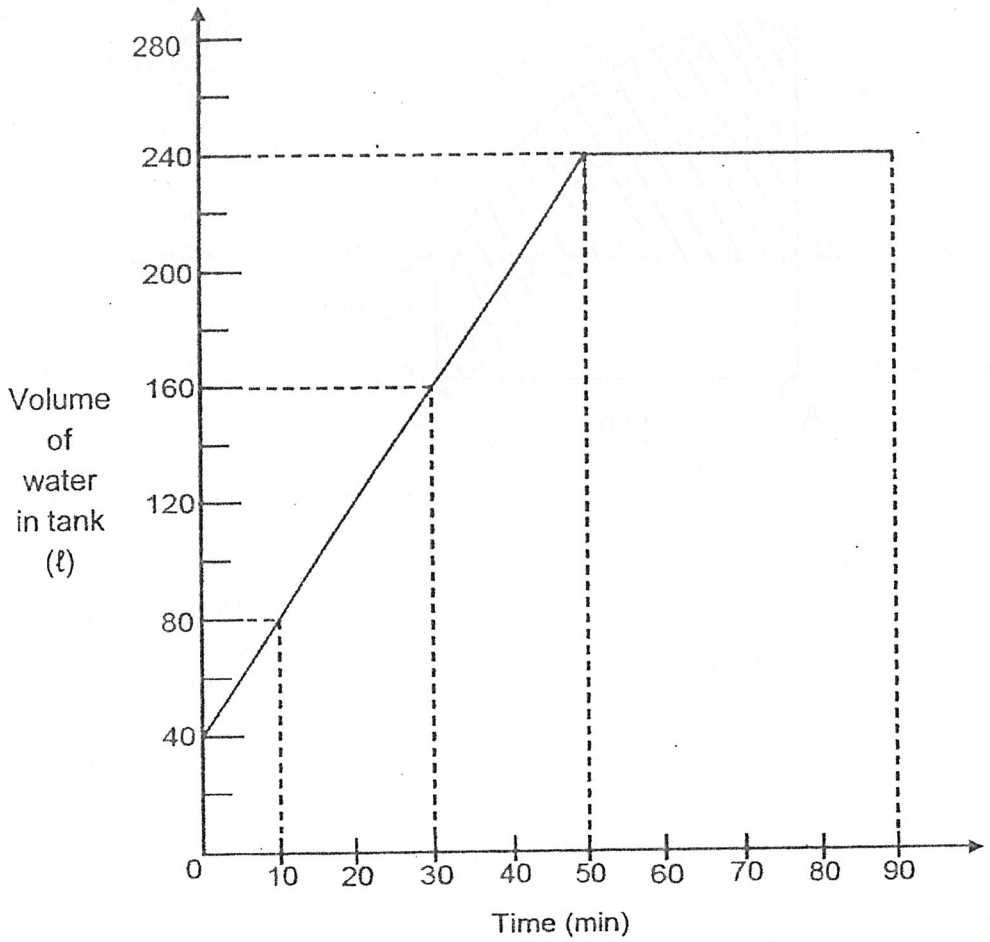


(a) How much water flowed from the tap into the tank in 1 minute?

Ans: (a) _____ [1]

(b) How many litres of water overflowed from the tank at the end of 90 minutes?

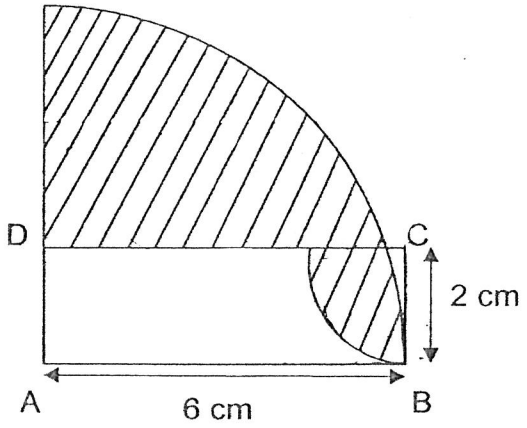
Ans: (b) _____ [2]

(Go on to the next page)

11 The figure below is made up of 2 quarter circles and a rectangle ABCD. AB = 6 cm and BC = 2 cm. What is the area of the shaded part?

(Take $\pi = 3.14$)

Do not write in this space



Ans: _____ [4]

12 In Country X, the height of six 10-cent coins is the same as that of five 20-cent coins as shown in diagram 1. Diagram 2 shows an unknown number of such 10-cent coins stacked to the same height as another stack of such 20-cent coins.

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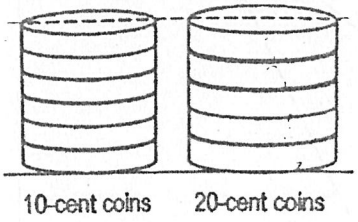

Diagram 1

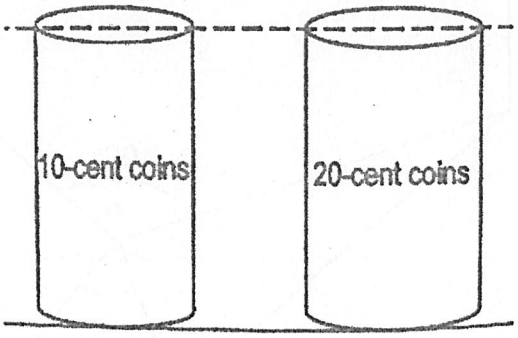

Diagram 2

If the total value of the 2 stacks of coins in diagram 2 is $8,

(a) find the number of 10-cent coins used in diagram 2.

Ans: (a) _____ [3]

(b) find the value of all the 20-cent coins used in diagram 2.

Ans: (b) _____ [1]

13 A rectangular piece of paper has been folded from the two lower corners as shown below. The two corners meet at P.

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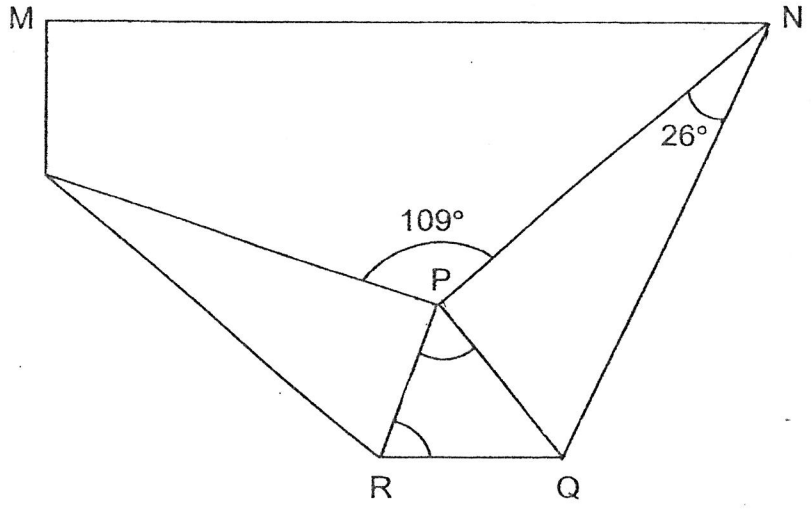

(a) Find ∠RPQ.

Ans: (a) _____ [2]

(b) Find ∠PRQ.

Ans: (b) _____ [2]

14 Mrs Goh had some money. She used \$53 to pay for 4 identical large potted plants and 7 identical small potted plants.

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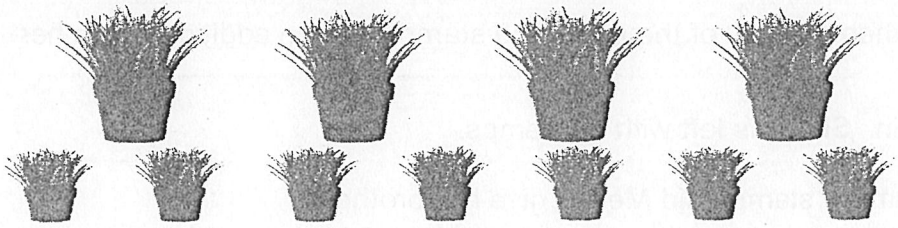

If she bought another large potted plant, she would be short of \$3.50.

If she bought another small potted plant, she would have \$1.50 left.

(a) What is the difference in price between the large and the small potted plant?

Ans: (a) _____ [1]

(b) Find the price of one large potted plant.

Ans: (b) _____ [3]

(Go on to the next page)

15 Meiling gave $\frac{5}{7}$ of her stamps and an additional 4 to her brother.

She then gave $\frac{1}{2}$ of the remaining stamps and an additional 5 to her cousin. She was left with 38 stamps.

How many stamps did Meiling give her brother?

Do not write in this space

Ans: _____ [4]

16 40 workers donated money to charity. 60% of them were male workers. Each male worker donated $20 and each female worker donated $4 more than each male worker.

Do not write in this space

(a) How much money did the female workers donate altogether?

Ans: (a) _____ [2]

(b) On the average, how much did each worker donate?

Answer: _____ [3]

17 The graph below shows the number of people at a book fair from Monday to Friday.

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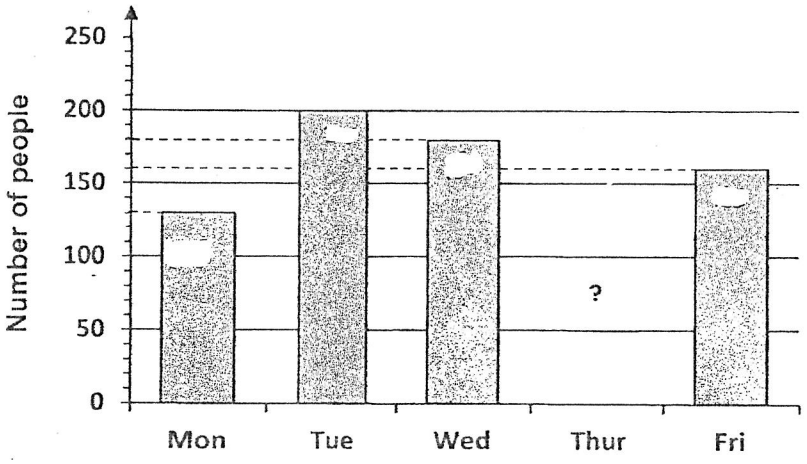


(a) The average number of people who visited the book fair from Monday to Friday was 174. How many people were at the book fair on Thursday?

Ans: (a) _____ [2]

(b) The average number of people who visited the book fair on Saturday and Sunday was 206. 20 more people visited on Saturday than on Sunday. What was the percentage increase in the number of visitors from Friday to Saturday?

Ans: (b) _____ [3]

End of Paper

SCHOOL: NAN HUA PRIMARY SCHOOL

SUBJECT: MATHEMATICS

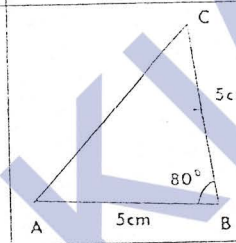
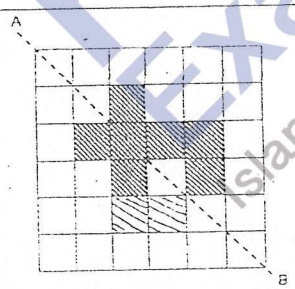
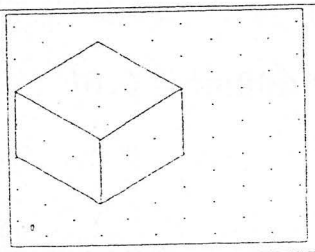
LEVEL: PRIMARY 6

PAPER: NON-WEIGHTED ASSESSMENT 2

PAPER 1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
3	3	1	1	2	2	4	3
Q9	Q10	Q11	Q12	Q13	Q14	Q15	
2	1	4	4	2	2	2	

SECTION B

Q16	$\frac{18}{1} \times \frac{5}{4} = \frac{90}{4} = 22.5$
Q17	1400ml
Q18	42
Q19	$\frac{2}{3} \div 3 = \frac{2}{9}$
Q20	East
Q21	$\frac{1}{4} + \frac{1}{2} = \frac{3}{4}$ $\frac{3}{4} \div 2 = \frac{3}{8}$
Q22	
Q23	
Q24	
Q25	4 cups = $\frac{4}{5}$ $\frac{7}{8} - \frac{4}{5} = \frac{35}{40} - \frac{32}{40} = \frac{3}{40}$

Q26	Area of Rectangle → 10 x 6 = 60cm^2 Area of small triangle → $\frac{1}{2}$ x 6 x 8 = 24cm^2 Area of shaded → 60 – 24 = 36cm^2
Q27	4w x 12 = 48w 48w ÷ 3 x 4 = 64w
Q28	<DBE = 180 – 90 – 28 = 62 <ABC = 180 – 65 = 115 <DBC = 115 – 62 = 53
Q29	$5.70 + $1.50 = $7.20 $7.20 ÷ $0.60 = 12
Q30	(a) True (b) False

PAPER 2

Q1. 12.5s

Q2. 3:1

Q3. $11.40

Q4. $31200

Q5. 29

Q6. $\angle BAE = 180° - 69° - 78° = 33°$

$\angle BAC = \frac{180°-78°}{2} = 51°$

$\angle CAE = 51° - 33° = 18°$

Ans: 18°

Q7. Volume of water in A → $\frac{4}{7} \times 28 \times 45 \times 22 = 15840$

Capacity of B → $20 \times 42 \times 11 = 9240$

Volume of water left in A → $15840 - 9240 = 6600ml = 6.6l$

Ans: 6.6L

Q8. $\angle DCE = \angle ABC = \frac{180°-38°}{2} = 71°$

$\angle EBF = 60°$

$\angle ABF = 71° + 60° = 131°$

Ans: 131°

Q9. Diameter of small semi-circle = 10cm

Diameter of large semi-circle = 20cm

Perimeter → $(\frac{1}{4} \times \pi \times 20) + (4 \times \frac{1}{4} \times \pi \times 10) = 15\pi \text{cm}^2$

Ans: $15\pi \text{cm}^2$

Q10. (a) $\frac{80-40}{10} = 4$

Ans: 4L

(b) $4 \times 40 = 160$

Ans: 160L

Q11. Area of small quarter-circle → $\frac{3.14\times2\times2}{4} = 3.14$

Area of ABCD → $2 \times 6 = 12$

Unshaded area → $12 - 3.14 = 8.86$

Area of bug quarter-circle → $\frac{3.14\times6\times6}{4} = 28.26$

Shaded area → $28.26 - 8.86 = 19.4$

Ans: 19.4cm²

Q12. (a) $(\$0.10 \times 6) + (\$0.20 \times 5) = \$1.60$

$\$8 \div \$1.60 = 5$

$5 \times 6 = 30$

Ans: 30 10-cent coins

(b) $5 \times 5 = 25$

$25 \times \$0.20 = \$5$

Ans: $5

Q13. (a) $360° - 109° - 90° - 90° = 71°$

Ans: 71°

(b) $\angle PQN = 180° - 26° - 90° = 64°$

$\angle PQR = 180° - 64° - 64° = 52°$

$\angle PRQ = 180° - 52° - 71° = 57°$

Ans: 57°

Q14. (a) $\$1.50 + \$3.50 - \$5$

Ans: $5

(b) $\$5 \times 4 = \$20$

$\$53 - \$20 = \$33$

$\$33 \div 11 = \$3$

$\$5 + \$3 = \$8$

Ans: $8

Q15. $\frac{1}{2}$ of remainder $= 38 + 5 = 43$

Remainder = 86

$\frac{2}{7}$ of total $= 86 + 4 = 90$

Stamps given to brother = $(90 \div 2 \times 5) + 4 = 229$

Ans: 229 stamps

Q16. (a) $40\% \times 40 = 16$

$16 \times \$24 = \$384$

Ans: $384

(b) $40 - 16 = 24$

$24 \times \$20 = \$480$

Average $\rightarrow \frac{\$480+\$384}{40} = \$21.60$

Ans: $21.60

4

Q17. (a) $174 \times 5 = 870$

$870 - 130 - 200 - 180 - 160 = 200$

Ans: 200 people

(b) Sunday → $\frac{(206 \times 2) - 20}{2} = 196$

Saturday → $196 + 20 = 216$

% increase → $\frac{206 - 160}{160} \times 100 = 28.75\%$

Ans: 28.75%