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南侨小学
NAN CHIAU PRIMARY SCHOOL
PRELIMINARY EXAMINATION
2026
MATHEMATICS PAPER 1
PRIMARY 6
BOOKLET A

Name / Index No.		( )
Class	**Primary 6**_____	
Date	**21 August 2026**	
Duration for Booklets A and B	**1h 10 min**	
.Marks	**Paper 1 Booklet A**	**26**
	Paper 1 Booklet B	**24**
	Paper 2	**50**
	Total	**100**
Parent's Signature		

Instructions to students	1.	Do NOT open this booklet until you are told to do so.
	2.	Follow all instructions carefully.
	3.	Answer all questions.
	4.	Shade your answers in the Optical Answer Sheet provided.
	5.	The use of calculators is **NOT** allowed.

This paper consists of **9** pages altogether.

Questions **1** to **10** carry 1 mark each. Questions **11** to **18** 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.

(26 marks)

---

1 Round 37 965 to the nearest hundred.

(1) 37 000

(2) 37 900

(3) 38 000

(4) 40 000

2 Which of the following has the same value as $\frac{8}{9} \div \frac{4}{5}$?

(1) $\frac{8}{9} \times \frac{4}{5}$

(2) $\frac{8}{9} \times \frac{5}{4}$

(3) $\frac{9}{8} \times \frac{5}{4}$

(4) $\frac{9}{8} \times \frac{4}{5}$

3 Which of the following is the same as 32.04 km?

(1) 3204 m

(2) 32 004 m

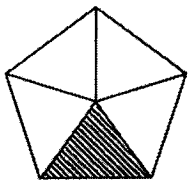
(3) 32 040 m

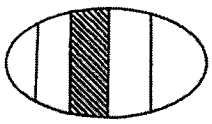
(4) 32 400 m

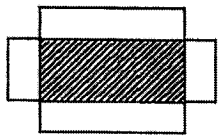
4 Arrange from the smallest to the largest: 1.8, 1.88, 1.808

	Smallest				Largest
(1)	1.88	,	1.808	,	1.8
(2)	1.88	,	1.8	,	1.808
(3)	1.8	,	1.88	,	1.808
(4)	1.8		1.808	,	1.88

5 Which of the following shows $\frac{1}{5}$ of the figure shaded?

(1) 

(2) 

(3) 

(4) 

6 Five boys shared 3 pizzas. What fraction of a pizza did each boy get?

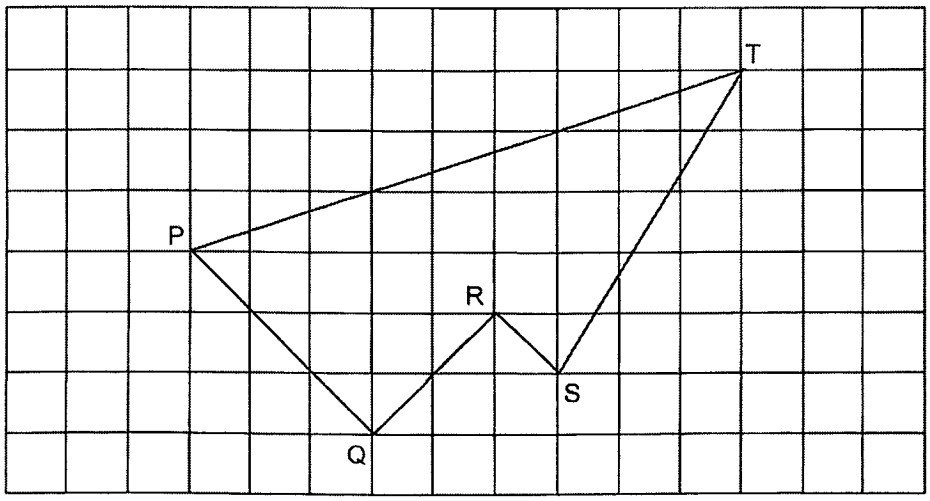
(1) $\frac{5}{3}$

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

(3) $\frac{3}{5}$

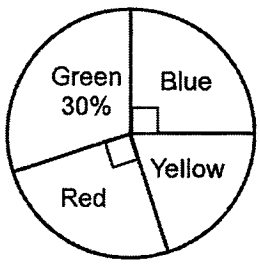
(4) $\frac{2}{5}$

7 In the figure, which two lines are parallel to each other?



(1) PQ and QR
(2) PQ and RS
(3) QR and ST
(4) PT and QR

8 The pie chart shows the favourite colours of 40 students in a class.

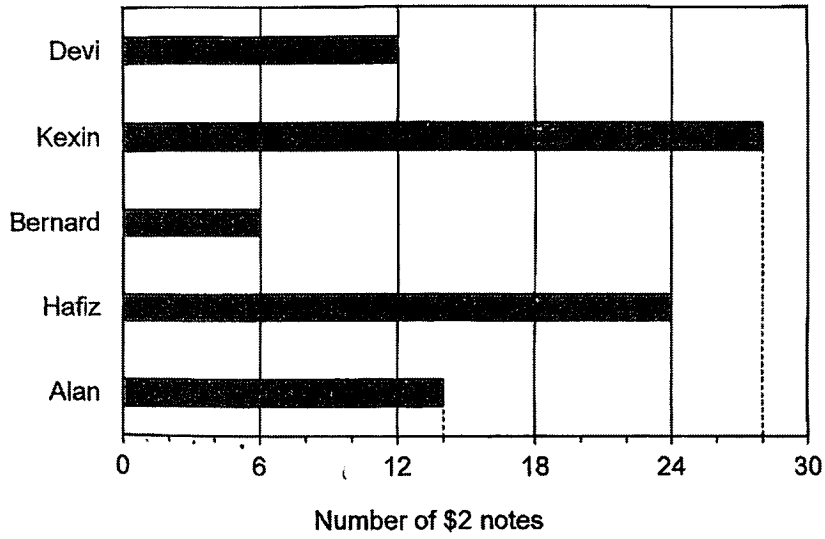


Find the number of students in the class who chose yellow as their favourite colour.

(1) 8
(2) 10
(3) 12
(4) 20

*Use the information below to answer Questions **9** and **10**.*

The bar graph shows the number of $2 notes saved by 5 children.
They do not have any other savings apart from these notes.



9 Who saved half as many $2 notes as Devi?

(1) Kexin
(2) Bernard
(3) Hafiz
(4) Alan

10 How much more money did Kexin save as compared to Bernard?

(1) $22
(2) $23
(3) $44
(4) $46

11

Sales!!
1 Curry Puff at $1.90
Buy 2 Get 1 Free!

Harry wants to buy 31 curry puffs.
What is the least amount of money he had to pay?

(1) $38
(2) $39.90
(3) $57
(4) $58.90

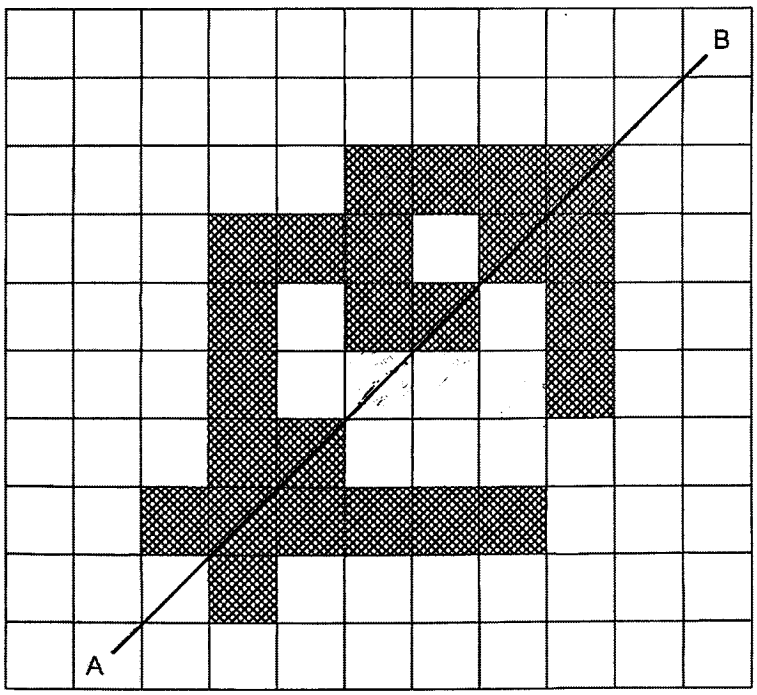
12 Ann had some pink and blue paper clips. After using 4 paper clips, she had 3 times as many blue as pink paper clips. She then packed the remaining paper clips into 14 bags of 6 paper clips each. Which of the following could be the number of pink paper clips Ann have at first?

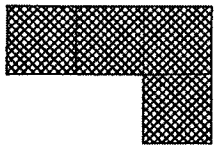
(1) 17
(2) 20
(3) 23
(4) 63

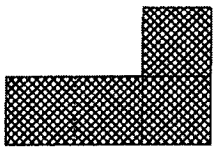
13 A toy store had some toys to sell. After selling 48 toys in the morning and $\frac{3}{8}$ of the remaining in the afternoon, the store was left with $\frac{1}{4}$ of the total number of toys at first. How many toys were sold altogether?

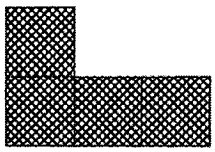
(1) 20
(2) 30
(3) 60
(4) 80

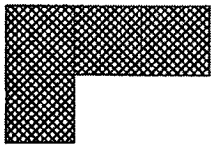
14 Which of the following pieces should be added such that line AB is a line of symmetry for the figure below? The piece should be added as it is, without any rotation.



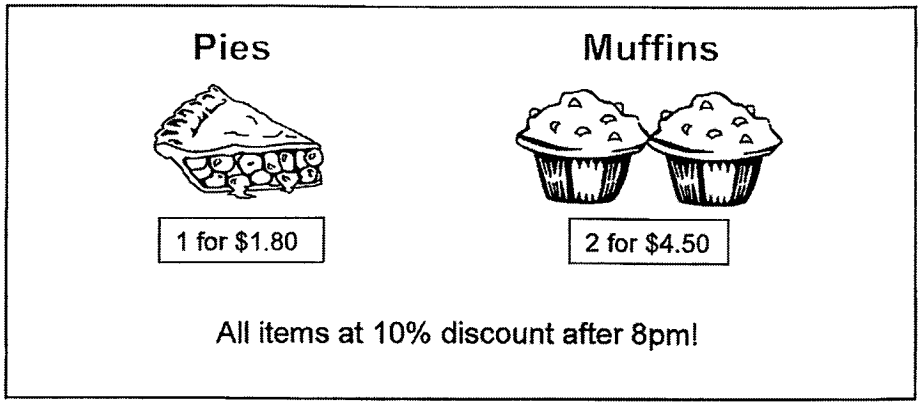
(1) 

(2) 

(3) 

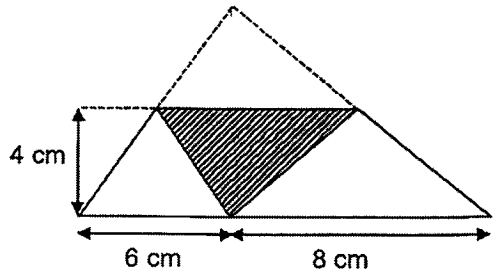
(4) 

15 Mdm Ling bought 10 muffins at 7:30 pm. Mrs Liew bought 10 pies at 8:30 pm. How much did they pay altogether?



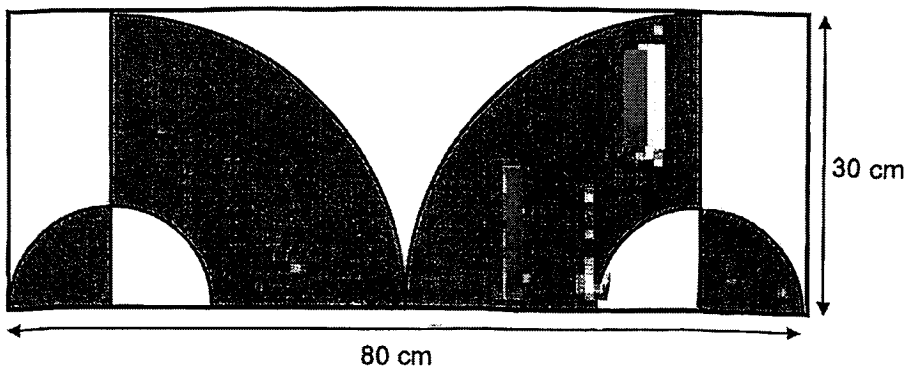
(1) $63.00
(2) $56.70
(3) $40.50
(4) $38.70

16 A triangular piece of paper is folded to form the figure below. Find the area of the shaded triangle.



(1) 28 cm^2
(2) 16 cm^2
(3) 14 cm^2
(4) 12 cm^2

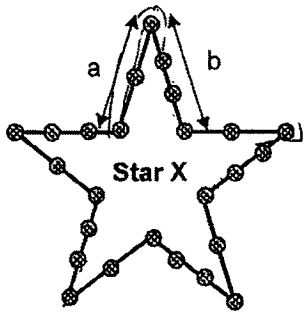
17 The figure is made up of a rectangle, 2 identical big quarter circles and 4 identical small quarter circles.

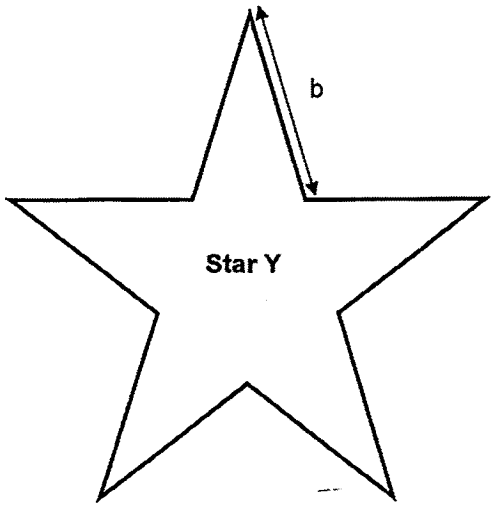


Find the perimeter of the shaded parts. (Take $\pi = 3.14$)

(1) 157 cm
(2) 251.2 cm
(3) 277 cm
(4) 491.2 cm

18 Round stickers are pasted along the sides of Star X in the pattern shown below.
All the sides and vertices are pasted with stickers.
Side b has one more round sticker than side a.





A total of 105 stickers are needed for Star Y. How many stickers were pasted on side b of Star Y, including the vertices?

(1) 11
(2) 12
(3) 19
(4) 21

Go on to Paper 1 Booklet B

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PRELIMINARY EXAMINATION
2026
MATHEMATICS PAPER 1
PRIMARY 6
BOOKLET B

Name / Index No.		( )
Class	**Primary 6**_____	
Date	**21 August 2026**	
Duration for Booklets A and B	**1h 10 min**	
Marks	**Booklet B**	**24**
Parent's Signature		

Instructions to students	1.	Do NOT open this booklet until you are told to do so.
	2.	Follow all instructions carefully.
	3.	Answer all questions.
	4.	Write your answers in this booklet.
	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 calculators is **NOT** allowed.

This paper consists of 7 pages altogether.

Questions **19** to **30** 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. (24 marks)

Do not write in this space

19 **(a)** Find the value of 3208 – 49.

Ans: (a) _____

(b) Write down all the factors of 9.

Ans: (b) _____

20 **(a)** Find the value of 2.58 + 4.9

Ans: (a) _____

(b) Find the value of 0.37 x 200

Ans: (b) _____

Score:

Do not write in this space

21 **(a)** Find the value of $\frac{4}{5} - \frac{1}{3}$

Ans: (a) _____

(b) Write one fraction between $\frac{1}{3}$ and $\frac{2}{3}$

Ans: (b) _____

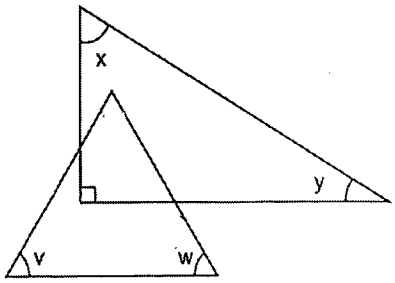
22 Ray was at the bus stop outside his school at 2:15 pm. He waited 21 minutes for the bus. He reached the bus stop outside his home at 3:09 pm. How long was the bus journey?

Ans: _____ min

Score: _____

23 The figure is made up of a right-angled triangle and an equilateral triangle. Find the value of $\angle v + \angle w + \angle x + \angle y$.

Do not write in this space



Ans: _____ °

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24 Find the value of $\frac{7p}{3} + 5p - 8$ when $p = 9$.

Ans: _____

---

25 Ruiming is 1.7 m tall. He is 8 cm taller than his brother. What is his brother's height in metres?

Ans: _____ m

Score: _____

26 The table shows the number of bookings of badminton courts at a Sports Hall over 3 months.

Do not write in this space

Month	Number of bookings
May	27
June	63
July	42

(a) Find the ratio of the number of bookings made in May to June to July. Give your answer in the simplest form.

Ans: (a) _____

(b) The ratio of the number of bookings made in May to August was equal to the ratio of the number of bookings made in June to July. How many bookings were made in August?

Ans: (b) _____

Score: ☐

*Use the information below to answer Questions **27** and **28**.*

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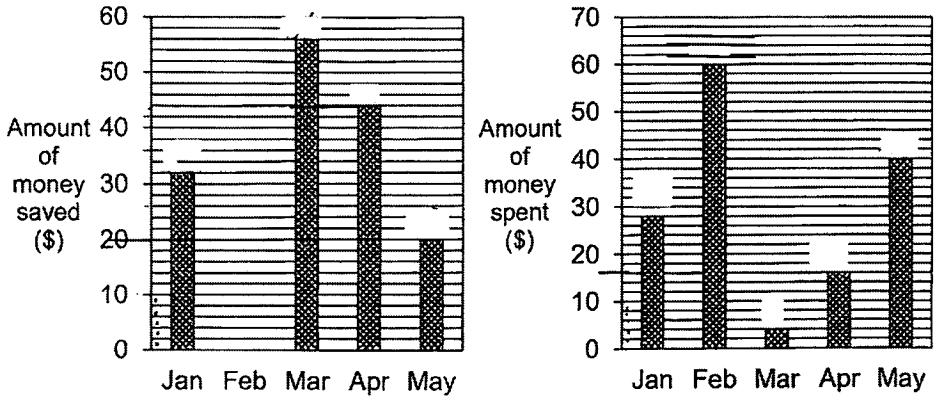
The bar graphs show the amount of money Sarah saved and spent from her pocket money every month from January to May.



27 How much pocket money did Sarah receive per month?

Ans: $ _____

28 What was the average amount of money Sarah saved from January to May?

Ans: $ _____

Score: _____

29 ABC and CDE are triangles inside a square of side 8 cm.
CFGH has an area of 9 cm^2. Find the area of the shaded parts.

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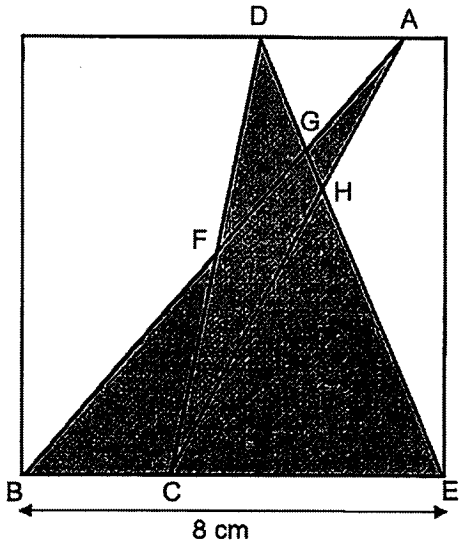

Ans: _____ cm^2

Score:

30 Alice glued 11 cubes of side 1 cm to form Solid A and 6 cubes of 1 cm to form Solid B.

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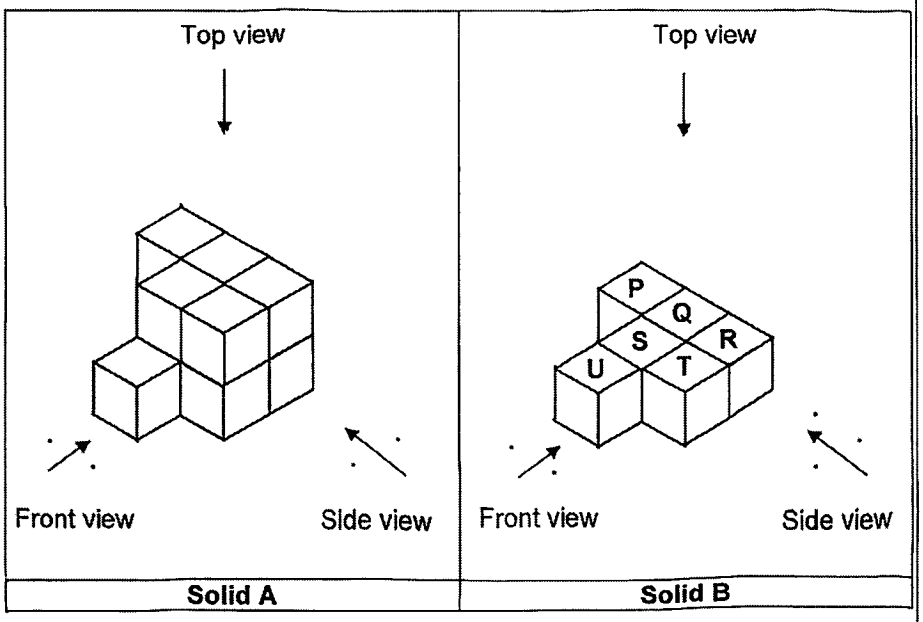
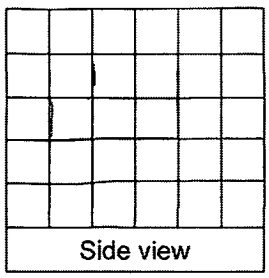


(a) Draw the side view of Solid A.



(b) Alice added 3 more cubes to Solid B so that both Solid A and Solid B have the same Top view, Front view and Side view. She placed one cube at position P of Solid B. Where did Alice place the other 2 cubes?

Ans: (b) _____ and _____

End of Paper 1 Booklet B

Score: _____

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2026
MATHEMATICS PAPER 2
PRIMARY 6

Name / Index No.		( )
Class	**Primary 6**_____	
Date	**21 August 2026**	
Duration for Paper 2	**1h 20min**	
Marks	**Paper 2**	/ **50**
Parent's Signature		

Instructions to students	1.	Do NOT open this booklet until you are told to do so.
	2.	Follow all instructions carefully.
	3.	Answer all questions.
	4.	Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
	5.	Do not use correction fluid/tape or highlighters.
	6.	The use of an approved calculator is allowed.

This paper consists of **13** pages altogether.

Questions **1** to **5** 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. (10 marks)

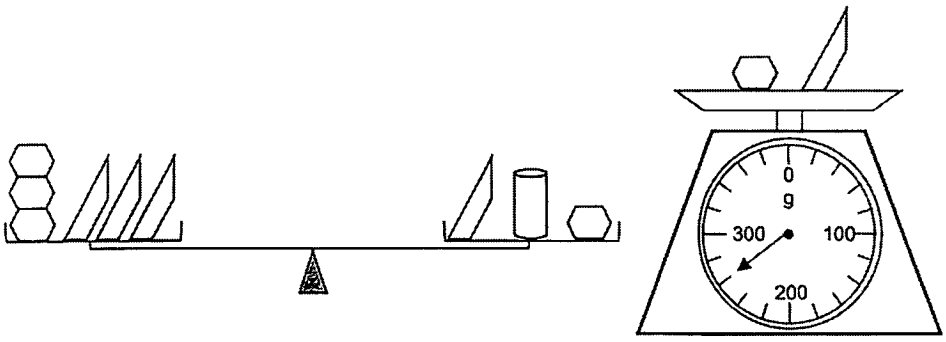
Do not write in this space

1 A ribbon is $1\frac{3}{5}$ m long. Jenny used $\frac{3}{8}$ of the ribbon.
Find the length of ribbon that Jenny used.

Ans: _____ m

2 The diagram shows five identical ⬡, five identical ◢ and one ▯ on two scales.

Find the mass of one ▯.



Ans: _____ g

Score: ☐

3 Uncle Lim collected a total of 153 boxes for recycling. He was paid $91.45 for all the boxes collected based on the rates below.

Do not write in this space

First 80 boxes	$0.55 per box
Each additional box	?

How much was Uncle Lim paid for each additional box he collected?

Ans: $ _____

4 Josh has a piece of paper with 10 digits written on it.

3	9	8	2	5	6	7	4	9	1

He wants to cut it into 4 smaller pieces. Each piece has either a 2-digit or a 3-digit number.

One of the possible ways he can cut is:

3 9 8	2 5	6 7	4 9 1

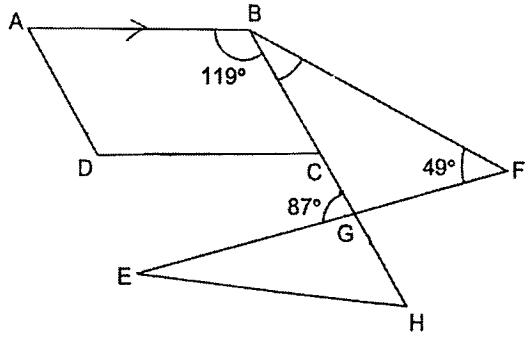
Considering all the possible ways of cutting, what is the greatest possible 5-digit even number Josh can form when he places 2 smaller pieces side by side?

Ans: _____

Score: _____

5 In the figure, AB is parallel to DC.
BCGH and EGF are straight lines. ∠ABC = 119°.

Do not write in this space



Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
∠FBH = 61°.			
The sum of ∠GEH and ∠GHE is 93°.			
ABCD is a parallelogram.			

Score:

For questions **6** to **15**, show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. The number of marks available is shown in the bracket [ ] at the end of each question or part–question. (40 marks)

Do not write in this space

6 Figures X and Y are formed by arranging identical rectangles together without overlapping. The shaded part in Figure X is a square of area 64 cm^2.
Find the perimeter of Figure Y.

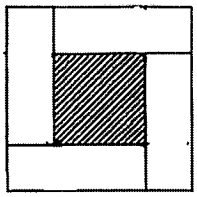


Figure X

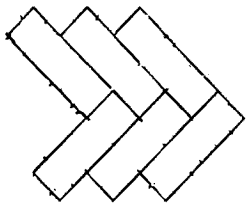


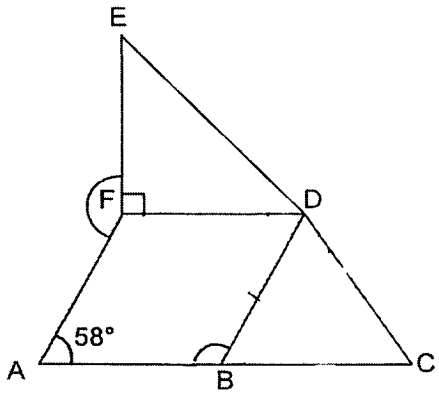
Figure Y

Ans: _____ cm [3]

Score: ☐

7 The figure is made up of a rhombus ABDF, a right-angled triangle EFD and an isosceles triangle BCD. BD = CD and ABC is a straight line.

Do not write in this space



(a) Find ∠AFE

Ans: (a) _____ ° [1]

(b) Find ∠CDF

Ans: (b) _____ ° [2]

Score: _____

Do not write in this space

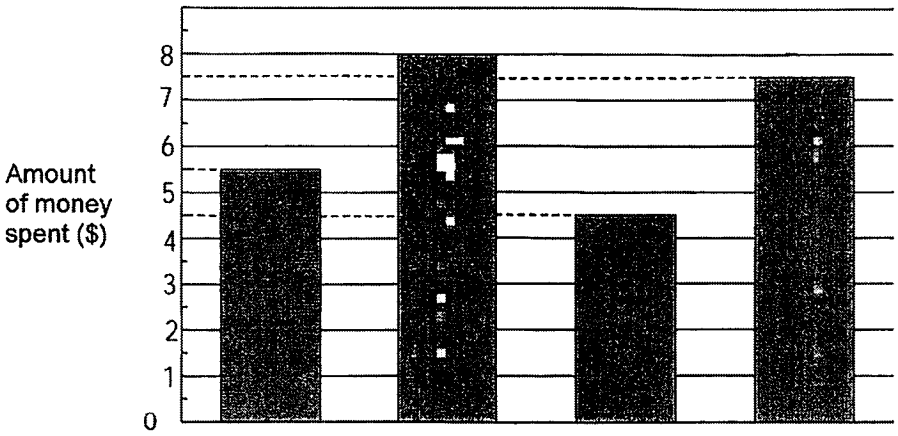
8 A canteen stall sold three types of food.

Food items	Price per item
Pizza Slice	$2
Chicken Burger	$1
Jam Sandwich	50¢

Nat bought 1 fewer pizza slice than Ric.
Ivy bought an odd number of jam sandwiches and as many food items as Ken.

The bar graph shows the amount spent by the 4 children.

(a) Label the graph by writing R for Ric, I for Ivy, N for Nat and K for Ken in the blanks below.



Ans: (a) _____ _____ _____ _____ [1]

(b) Ivy bought jam sandwiches only. Ken bought equal number of chicken burgers and jam sandwiches. Find the number of chicken burgers that Ken bought.

Ans: (b) _____ [3]

Score:

9 Keith had some pens. 40% of the pens were black and the rest were blue. He threw away 12 black pens that were spoilt and gave away 108 black pens. Then he bought 120 more blue pens. The percentage of black pens decreased to 34%.

Do not write in this space

(a) What fraction of the pens were blue in the end?

Ans: (a) _____ [1]

(b) How many pens did he have altogether at first?

Ans: (b) _____ [2]

Score: _____

Do not write in this space

10 Andy, Ben, Cody and Daryl saved some money. Andy saved \$6y which was thrice as much as Ben saved. Cody saved \$5 more than Ben. Daryl saved \$3 less than Cody.

(a) How much money did the 3 boys with the most savings save? Give your answer in terms of y in the simplest form.

Ans: (a) _____ [2]

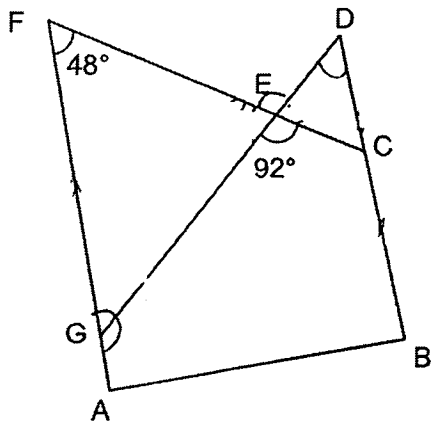
(b) The 3 boys with the most savings saved \$137 in total. How much did Ben save?

Ans: (b) \$ _____ [1]

Score: _____

Do not write in this space

11 BD is parallel to AF. CEF and DEG are straight lines.
$\angle EFG = 48^\circ$ and $\angle GEC = 92^\circ$.



(a) Find $\angle CDE$

Ans: (a) _____ ° [2]

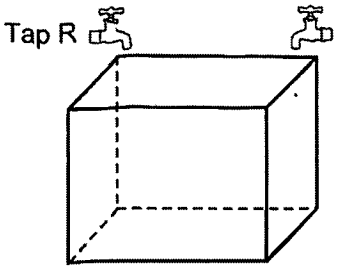
(b) Find $\angle EGA$

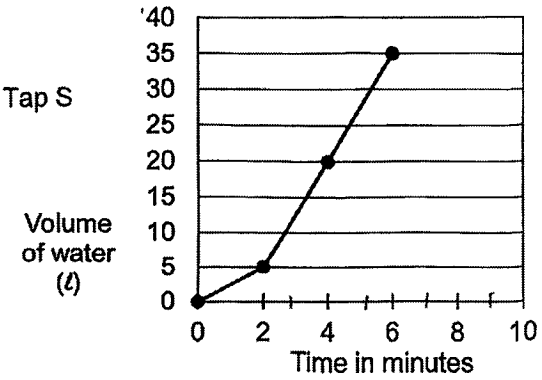
Ans: (b) _____ ° [2]

Score: _____

Do not write in this space

12 Gopal filled an empty rectangular tank with water using two taps.
He turned on Tap R first and after 2 minutes, he turned on Tap S.
Both taps were turned off at the same time when the tank was completely filled without overflowing. The tank was completely filled after 9 minutes.





The graph shows the amount of water in the tank.
Part of the graph is not drawn.

(a) How much water flows out from Tap R in one minute?

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

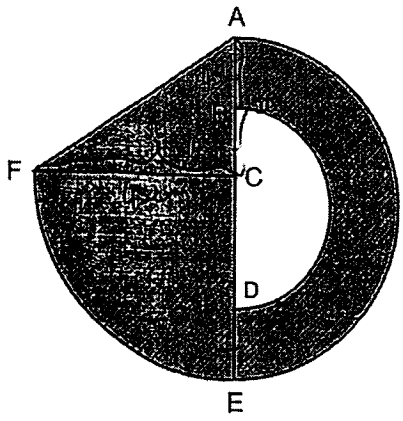
(b) Find the capacity of the tank.

Ans: (b) _____ cm^3 [3]

Score: _____

Do not write in this space

13 The figure is formed by two semi-circles, a quadrant and a triangle.
The length of AC is $\frac{2}{3}$ the length of CF. AB = BC = DE and CF is 42 cm.
(Take $\pi = \frac{22}{7}$)



(a) Find the length of AE.

Ans: (a) _____ cm [1]

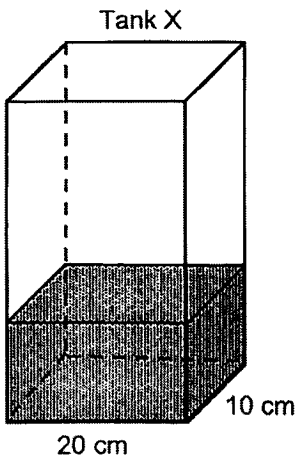
(b) Find the total shaded area of the figure.

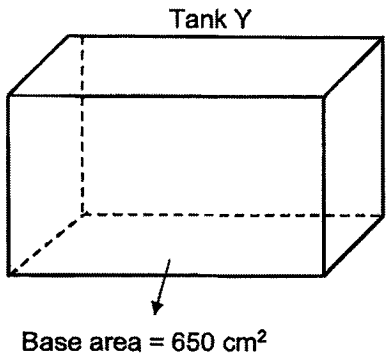
Ans: (b) _____ cm^2 [4]

Score: ☐

Do not write in this space

14 The capacity of a rectangular Tank X is 60 000 cm^3. It is $\frac{2}{5}$ filled with water.





(a) What is the height of the water level in Tank X?

Ans: (a) _____ cm [2]

(b) Tank Y is empty at first and has a base area of 650 cm^2. Water from Tank X was poured in Tank Y such that the height of water in Tank Y was twice the height of the water in Tank X. How much water was in Tank Y?

Ans: (b) _____ cm^3 [3]

Score: ____

15 There were 1185 apples, oranges and pears in a fruit stall.
Sam delivered the same number of apples and oranges, and thrice as many pears as apples to some shops. $\frac{7}{9}$ of apples, $\frac{2}{5}$ of oranges and $\frac{4}{7}$ of pears were then left in the fruit stall.

Do not write in this space

(a) What was the ratio of the number of apples to the number of oranges in the fruit stall at first?

Ans: (a) _____ [1]

(b) Sam packed the remaining apples and pears into boxes.
He packed 4 apples and 6 pears in each box. How many apples were not packed?

Ans: (b) _____ [4]

End of Paper

Score: ☐

NAN CHIAU PRIMARY SCHOOL
PRIMARY 6 MATHEMATICS
TERM 3 PRELIMINARY EXAMINATION 2026
Mass Review – Students' Answer Key

Name: _____) Class: P6 _____

PAPER 1 Booklet A: 26 marks

Questions 1 to 10 carry 1 mark each. Questions 11 to 18 carry 2 marks each.

1 mark each						2 marks each		
No.	**Solutions**		**No.**	**Solutions**		**No.**	**Solutions**	
1)	3		**6)**	3		**11)**	2	
2)	2		**7)**	2		**12)**	3	
3)	3		**8)**	1		**13)**	3	
4)	4		**9)**	2		**14)**	1	
5)	1		**10)**	3		**15)**	4	
						16)	3	
						17)	3	
						18)	2	

PAPER 1 Booklet B: 24 marks

Questions 19 to 30 carry 2 marks each.

No.	**Solutions**
19b)	Factors of 9: 1 x 9 = 9 3 x 3 = 9 **Ans: (a)** 3159 **[A1]** **(b)** 1, 3, 9 **[A1]**
20a)	2.58 + 4.90 = **7.48**
b)	0.37 x 2 x 100 = 0.74 x 100 = **74** **Ans: (a)** 7.48 **[A1]** **(b)** 74 **[A1]**

21a)	$\frac{12}{15} - \frac{5}{15} = \frac{7}{15}$	
b)	$\frac{1}{2}$ or $\frac{3}{6}, \frac{4}{7}, \frac{3}{5}, \frac{3}{7}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{4}{9}, \frac{5}{9}, \frac{2}{5}, \frac{4}{10}, \frac{5}{10}$	
	Ans: (a) $\frac{7}{15}$	**[A1]**
	(b) Any fraction between $\frac{1}{3}$ and $\frac{2}{3}$	**[A1]**
22)	Board bus at 2:36 pm 2:36 pm $\longrightarrow$ 3:09 pm 33 min	**[M1]**
	Ans: 33 min	**[A1]**
23)	$\angle v + \angle w = 60^\circ + 60^\circ$ $= 120^\circ$ $\angle x + \angle y = 90^\circ$ $\angle v + \angle w + \angle x + \angle y$ $= 120^\circ + 90^\circ$ $= 210^\circ$	**[M1]**
	Ans: 210°	**[A1]**
24)	$\frac{7p}{3} + 5p - 8$ $= \frac{7 \times 9}{3} + 5 \times 9 - 8$ $= 21 + 45 - 8$ $= 58$	**[M1]**
	Ans: 58	**[A1]**
25)	$1.7 - 0.08 = 1.62$ or $170 - 8 = 162$ 162 cm = 1.62 m	**[M1]** **[M1]**
	Ans: 1.62 m	**[A1]**

26a) May : Jun : Jul
27 : 63 : 42
= 9 : 21 : 14

b) Jun : Jul
63 : 42
3 : 2
May : Aug
3 : 2
27 : 2 x 9 = 18

Ans: (a) 9 : 21 : 14 **[A1]**

(b) 18 **[A1]**

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27) Jan: $\frac{32 + 28}{2} = 60$
Feb: $\frac{0 + 60}{2} = 60$
Mar: $\frac{56 + 4}{2} = 60$
Apr: $\frac{44 + 16}{2} = 60$
May: $\frac{20 + 40}{2} = 60$

Anyone [M1]

Ans: $60 **[A1]**

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28) 32 + 0 + 56 + 44 + 20 = 152
$\frac{152}{5} = 30.4$ **[M1]**

Ans: $30.40 **[A1]**

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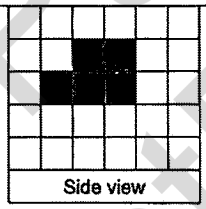
29) Area of shaded part
$= (\frac{1}{2} \times 8 \times 8) - 9$ **[M1]**
= 23

Ans: 23 cm^2 **[A1]**

30a)



[A1]

b) Possible:
Q and T
S and T
S and R

Ans: Any of the possible answers listed **[A1]**

PAPER 2: 50marks

Questions 1 to 5 carry 2 marks each.

<table>
<tr><th>No.</th><th>Solutions</th></tr>
<tr><td>1)</td><td>$1\frac{3}{5} \times \frac{3}{8} = \frac{3}{5}$ [M1]
Ans: $\frac{3}{5}$ m [A1]</td></tr>
<tr><td>2)</td><td>2 x 260 = 520 [M1]
Ans: 520 g [A1]</td></tr>
<tr><td>3)</td><td>80 x 0.55 = 44
153 – 80 = 73
91.45 – 44 = 47.45
47.45 ÷ 73 = 0.65 [M1]
Ans: $0.65 [A1]</td></tr>
<tr><td>4)</td><td>Possible ways:
- 39 , 82, 567, 491
- 39, 825, 67, 491
- 39, 825, 674, 91
- 398, 25, 67, 491
- 398, 25, 674, 91
- 398, 256, 74, 91
Anyone [M1]
Ans: 91 674 [A1]</td></tr>
<tr><td>5)</td><td>
<table>
<tr><th>Statement</th><th>True</th><th>False</th><th>Not possible to tell</th></tr>
<tr><td>∠FBH = 61°.</td><td></td><td>✓</td><td></td></tr>
<tr><td>The sum of ∠GEH and ∠GHE is 93°.</td><td></td><td>✓</td><td></td></tr>
<tr><td>ABCD is a parallelogram.</td><td></td><td></td><td>✓</td></tr>
</table>
2 correct [A1]
3 correct [A2]
</td></tr>
</table>

Questions 6 to 15

No.	Solutions	
6)	$\sqrt{64} = 8$ 1 L = 3 B 8 + 2 = 4 22 x 4 = 88 Or $\sqrt{64} = 8$ B = 4 cm L = 12 cm 3 x 12 + 8 + 11 x 4 = 88	[M1] [M1] [M1] [M1] Ans: 88 cm [A1]
7a)	∠AFD = 180° - 58° = 122° ∠AFE = 360° - 90° - 122° = 148°	[M1]
b)	∠BDC = 180° - 58° - 58° = 64° ∠CDF = 64° + 58° = 122°	[M1] Ans: (a) 148° [A1] (b) 122° [A1]
8a)	N K I R	
b)	4.50 + 0.50 = 9 Ken bought 9 items. P | B | S | Total ($8) 5 | 2 | 2 | 10 + 2 + 1 = $13 1 | 4 | 4 | 2 + 4 + 2 = $8	[M1] [M1] Ans: (a) N K I R [A1] (b) 4 [A1]

9a)	100% - 34% = 66% $\frac{66}{100} = \frac{33}{50}$ Accept equivalents	
b)	66% - 60% = 6% or 40% - 34% = 6% 6% → 120 1% → 120 ÷ 6 = 20 100% → 20 x 100 = 2000	[M1]
	Ans: (a) $\frac{33}{50}$	[A1]
	(b) 2000	[A1]
10a)	Andy → $6y$ Ben → $2y$ *(least)* Cody → $2y + 5$ Daryl → $2y + 2$ 3 boys with most savings → $6y + 2y + 5 + 2y + 2$ $= 10y + 7$	[M1]
b)	$10y + 7 = 137$ $10y = 130$ $y = 13$ 13 x 2 = 26	
	Ans: (a) $(10y+7)	[A1]
	(b) $26	[A1]
11a)	∠FCB = 180° - 48° = 132° ∠DCE = 180° - 132° = 48° ∠DEC = 180° - 92° = 88° ∠CDE = 180° - 48° - 88° = 44°	[M1]
b)	∠FEG = 180° - 92° = 88° ∠FGE = 180° - 48° - 88° = 44° ∠EGA = 180° - 44° = 136°	[M1]
	Ans: (a) 44°	[A1]
	(b) 136°	[A1]

12a) 2 min → 5000 cm^3
1 min → 5000 ÷ 2 = 2500 cm^3

b) Tap R
9 min → 9 x 2500 = 22 500

Tap S
2 min → 15 – 5 = 10 litres
1 min → 5 000 cm^3
7 min → 7 x 5000 = 35 000 [M1]

22 500 + 35 000 = 57 500 [M1]

Ans: (a) 2500 cm^3 [A1]

(b) 57 500 cm^3 [A1]

13a) 3 units = 42 cm
1 unit = 14 cm
5 units = 5 x 14 cm
= 70 cm

b) Area of Quadrant
$= \frac{1}{4} \times \frac{22}{7} \times 42 \times 42$
= 1386

Area of triangle
$= \frac{1}{2} \times 42 \times 28$
= 588

Area of ½ shaded ring
= Area of Big SC – area of Small SC
$= \frac{1}{2} \times \frac{22}{7} \times 35 \times 35 - \frac{1}{2} \times \frac{22}{7} \times 21 \times 21$
= 1925 – 693
= 1232 [M1]

1386 + 588 + 1232 = 3206 cm^2 [M1]

Ans: (a) 70 cm [A1]

(b) 3206 cm^2 [A1]

14a) $\frac{2}{5} \times 60\,000 = 24\,000$
$24\,000 \div 10 \div 20 = 120$ **[M1]**

b) Combined base area
$= 200 + 650 + 650 = 1500$

$24\,000 \div 1500 = 16$ **[M1]**

$16 \times 2 = 32$
$32 \times 650 = 20\,800$ **[M1]**

Ans: (a) 120 cm **[A1]**

(b) 20 800 cm^3 **[A1]**

15a)

Fruits	Left	Delivered	Total
Apples	$\frac{7}{9}$	$\frac{2}{9} = \frac{6}{27}$	27u
Oranges	$\frac{2}{5}$	$\frac{3}{5} = \frac{6}{10}$	10u

b)

Pears	$\frac{4}{7}$	$\frac{3}{7} = \frac{18}{42}$	42u

$27 + 10 + 42 = 79$
79 units = 1185
1 unit = $1185 \div 79 = 15$ **[M1]**
21 units = $15 \times 21 = 315$ (rem A)
24 units = $15 \times 26 = 360$ (rem P)
$360 \div 6 = 60$ (no of boxes) **[M1]**
$315 - (60 \times 4) = 75$ **[M1]**

OR

$315 \div 4 = 78$ R 3 (78 boxes of apples)
$360 \div 60 = 60$ (60 boxes of pears) **[M1]**
$78 - 60 = 18$
$18 \times 4 = 72$
$72 + 3 = 75$ **[M1]**

OR

$315 - (4 \times 60) = 75$ **[M1]**

Ans: (a) 27 : 10 **[A1]**

(b) 76 **[A1]**