NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2024

PRIMARY 5

MATHEMATICS PAPER 1 (BOOKLET A)

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

1. Do not turn over this page 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 (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 5 ( )

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 (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. (20 marks)

---

1 In the number 87.65, the digit _____ is in the tenths place.

(1) 8

(2) 7

(3) 6

(4) 5

2 Express 7045 grams in kilograms.

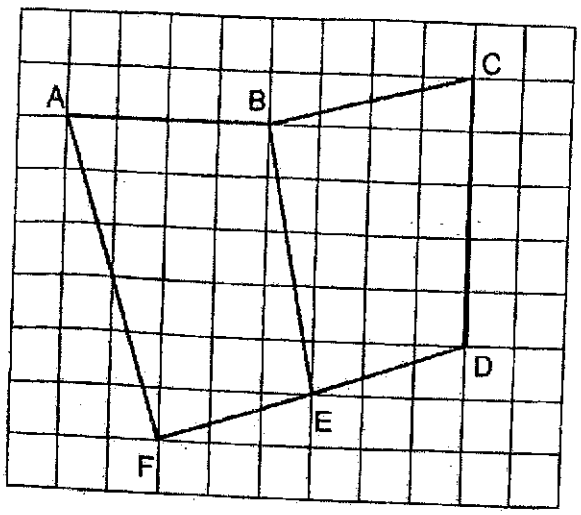
(1) 7.045 kg

(2) 7.45 kg

(3) 70.45 kg

(4) 704.5 kg

3 In the square grid below, which line is perpendicular to FD?



(1) AF

(2) BC

(3) BE

(4) ED

4 A printer can print 12 pages in 60 seconds. How long will this printer take to print 30 pages?

(1) 24 seconds

(2) 120 seconds

(3) 126 seconds

(4) 150 seconds

5 Susan baked 80 cupcakes. 56 of them were strawberry cupcakes and the rest were chocolate cupcakes. What percentage of the cupcakes baked were strawberry cupcakes?

(1) 24%

(2) 30%

(3) 56%

(4) 70%

6 Muthu had $220. He spent 20% of his money. How much money did he spend?

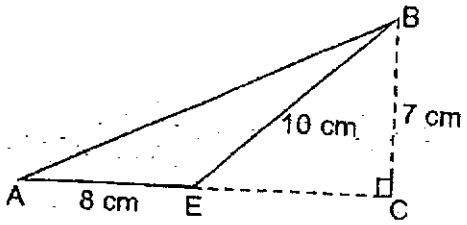
(1) $11

(2) $44

(3) $176

(4) $200

7 In the figure below, AEC is a straight line and BC is perpendicular to AC. AE = 8 cm, BE = 10 cm and BC = 7 cm. What is the area of triangle ABE?



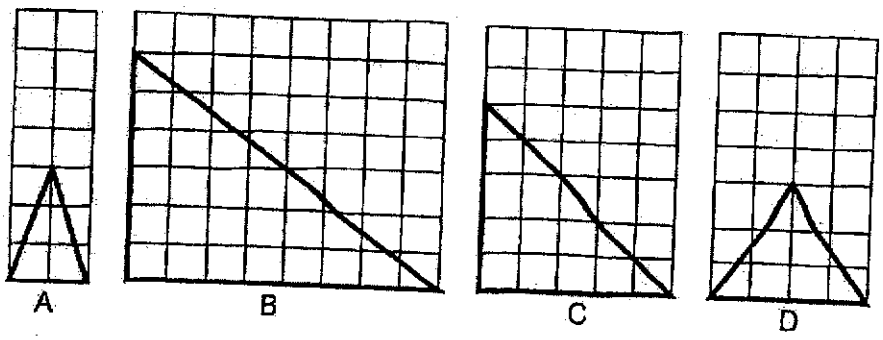
(1) 28 cm²

(2) 40 cm²

(3) 56 cm²

(4) 80 cm²

8 In the square grids below, which of the following is true for the following triangles?



(1) B is an obtuse-angled triangle.

(2) C is an equilateral triangle.

(3) A and D are isosceles triangles.

(4) B and D are right-angled triangles.

9 In a class of 45 children, 27 are girls and the rest are boys. What is the ratio of the number of boys to the number of girls?

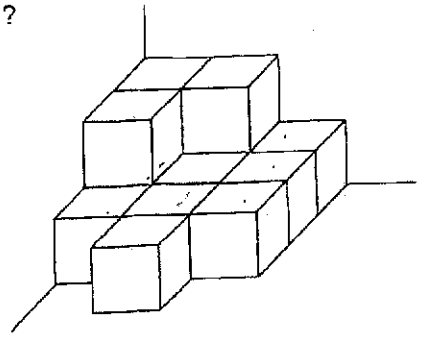
(1) 2 : 3

(2) 3 : 2

(3) 3 : 5

(4) 5 : 3

10 The figure below shows a solid formed using 1-cm cubes. What is the volume of the solid?



(1) 9 cm^3

(2) 10 cm^3

(3) 12 cm^3

(4) 13 cm^3

11 $\frac{1}{3}$ of a number is 15. What is the number?

(1) 5

(2) 12

(3) 18

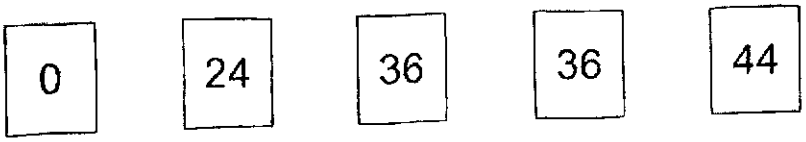
(4) 45

12 Arrange the following fractions from the smallest to the greatest.

$\frac{1}{10}$, $\frac{2}{7}$ $\frac{1}{3}$ $\frac{2}{21}$

	Smallest				Greatest
(1)	$\frac{1}{3}$,	$\frac{1}{10}$,	$\frac{2}{7}$,	$\frac{2}{21}$	
(2)	$\frac{2}{21}$,	$\frac{2}{7}$,	$\frac{1}{10}$,	$\frac{1}{3}$	
(3)	$\frac{2}{21}$,	$\frac{1}{10}$,	$\frac{2}{7}$,	$\frac{1}{3}$	
(4)	$\frac{1}{10}$,	$\frac{1}{3}$,	$\frac{2}{21}$,	$\frac{2}{7}$	

13 Find the average of the following 5 numbers.



(1) 28

(2) 35

(3) 36

(4) 140

14 Peter made a total of 12 800 keychains in 40 weeks.
The number of keychains he made each day from Monday to Wednesday was twice as many as the number of keychains he made each day from Thursday to Friday.
He did not make any keychains on Saturdays and Sundays.
How many keychains did he make every Friday?

(1) 32

(2) 40

(3) 46

(4) 64

15 A tank contained 5.4 ℓ of water. All the water was poured into three empty bottles. The first bottle contained twice as much water as the second bottle. The second bottle contained 3 times as much water as the third bottle. How much water was there in the second bottle?

(1) 2.70 ℓ

(2) 1.62 ℓ

(3) 0.90 ℓ

(4) 0.54 ℓ

NANYANG PRIMARY SCHOOL

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PRIMARY 5

MATHEMATICS PAPER 1 (BOOKLET B)

Total Duration for Booklets A and B: 1 hour

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4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 5 ( )

Booklet B	20 / 25

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

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)

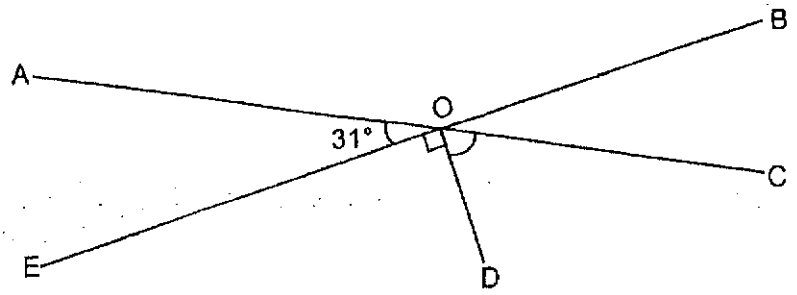
16 Find the value of $(87 - 3 \times 7) \div 6 - (2 + 2)$

Ans: _____

17 Find the value of $3 \div 8$. Express your answer as a decimal.

Ans: _____

18 In the figure below, AOC and BOE are straight lines. $\angle AOE = 31°$ and $\angle DOE = 90°$. Find $\angle COD$.



Ans: _____ °

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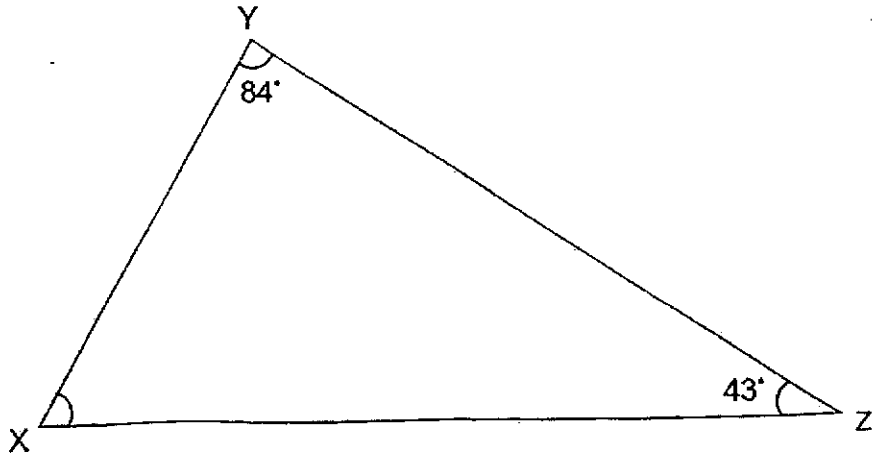
19 XYZ is a triangle. $\angle XYZ = 84°$ and $\angle YZX = 43°$. Find $\angle ZXY$.



Ans: _____ °

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20 What is the missing number in the box?

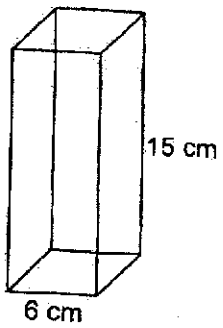
$\square : 9 = 54 : 81$

Ans: _____

Questions **21** 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.

(20 marks)

21 A cuboid of height 15 cm has a square base of 6 cm. What is the volume of the cuboid?



Ans: _____ cm^3

22 What is the product of $\frac{2}{7}$ and $\frac{5}{12}$?

Express your answer as a fraction in the simplest form.

Ans: _____

23 Ahmad bought 4 bottles of oil. Each bottle contained $\frac{3}{4}$ litres of oil. He then used $\frac{3}{10}$ litres of oil. How many litres of oil had Ahmad left?

Ans: _____ ℓ

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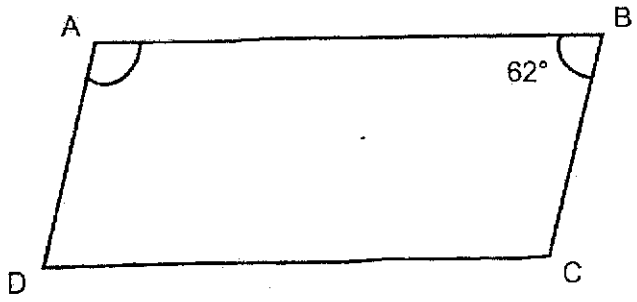
24 In the figure below, ABCD is a parallelogram. $\angle ABC = 62°$. Find $\angle DAB$.



Ans: _____ °

---

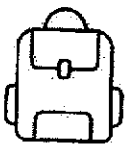
25 A tin of paint costs $24.50. Steve needs to buy 7 tins of paint, but he is short of $5. How much money does Steve have?

Ans: $_____

26 A factory produced some toys. All the toys were placed into boxes of 65 with no left over. There were 396 such boxes. Round the number of toys produced by the factory to the nearest thousand.

Ans: _____

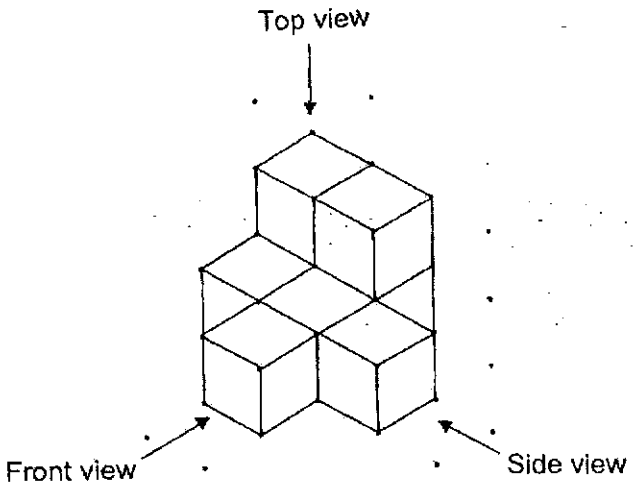
27 What is the price of the backpack after a discount of 8%?



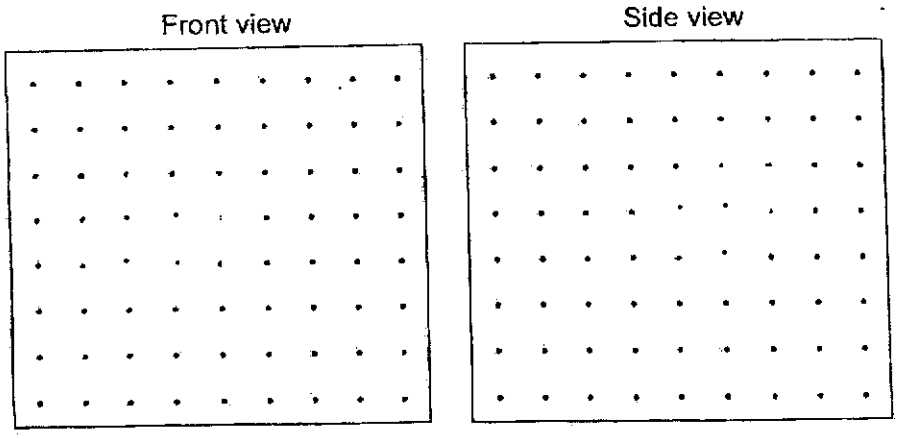
Usual price: $50

Ans: $_____

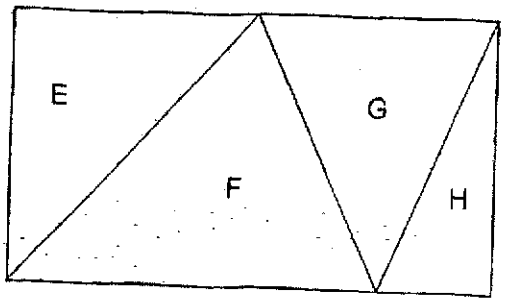
28 Louis built a solid using 8 unit cubes.



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



29 A rectangle is made up of 4 triangles E, F, G and H. The area of triangle F is 3 times the area of triangle H. The area of triangle H is 12 cm^2. What is the area of the rectangle?



Ans: _____ cm^2

30 At first, the average number of coins owned by a group of boys was 7. A new boy who owned 63 coins joined the group and the new average number of coins owned by the boys became 11.
How many boys were there at first?

Ans: _____

End of Paper

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2024

PRIMARY 5

MATHEMATICS PAPER 2

Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is allowed.

Name: _____ ( )

Class: Primary 5 ( )

Parent's Signature: _____

Booklet A	**/ 20**
Booklet B	**/ 25**
Paper 2	**/ 55**
Total	**/ 100**

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 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)

1 Mr Tan used $2\frac{1}{8}$ ℓ of water on Monday. He used $3\frac{2}{5}$ ℓ of water on Tuesday. How much water did Mr Tan use on both days? Give your answer as a mixed number in the simplest form.

Ans: _____ ℓ

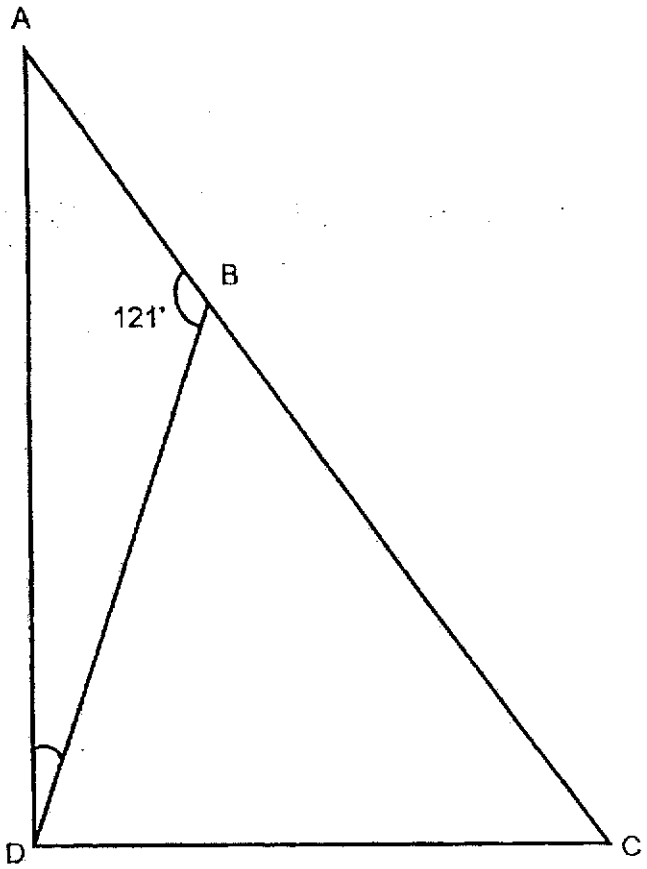
2 Sandy jogged $4\frac{4}{5}$ km each day last week. What was the total distance she jogged from Wednesday to Saturday last week? Give your answer as a mixed number in the simplest form.

Ans: _____ km

3 The average mass of 6 girls and 1 boy is 47 kg. The average mass of the girls is 45 kg. What is the mass of the boy?

Ans: _____ kg

4 ACD is a right-angled triangle. $\angle ADC = 90°$. BD = CD.
Find $\angle ADB$.



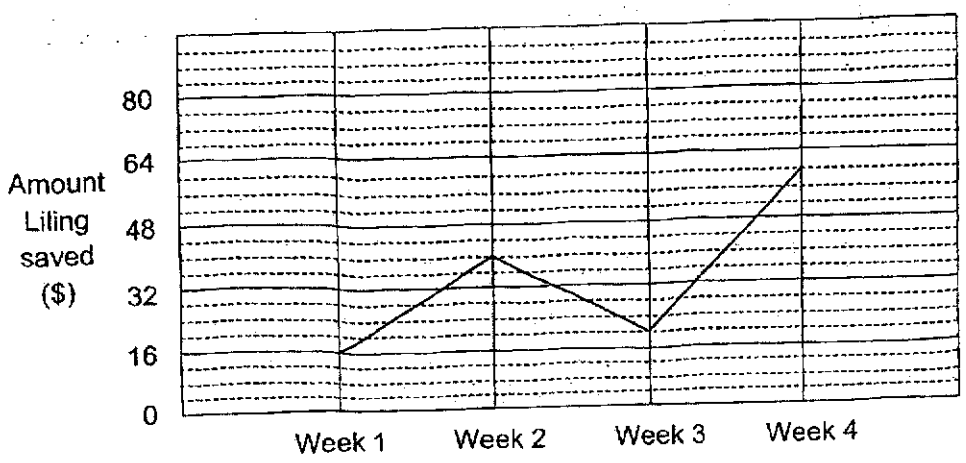
Ans: _____ °

5 Meili has a roll of ribbon to give to a group of friends. If she gives 0.7 m of ribbon to each of her friends, she will have 0.4 m of ribbon left. If she gives 0.8 m of ribbon to each of her friends, she will be short of 0.3 m of ribbon. What is the length of the roll of ribbon Meili has?

Ans: _____ m

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)

6 The line graph below shows the amount of money Liling saved each week over a period of 4 weeks.



(a) In which week did Liling save twice the amount of money she saved in Week 3?

Ans: (a) Week _____ [1]

(b) How much did Liling save in Week 4?

Ans: (b) _____ [1]

(c) How much less money did Liling save in Week 1 than in Week 2?

Ans: (c) _____ [1]

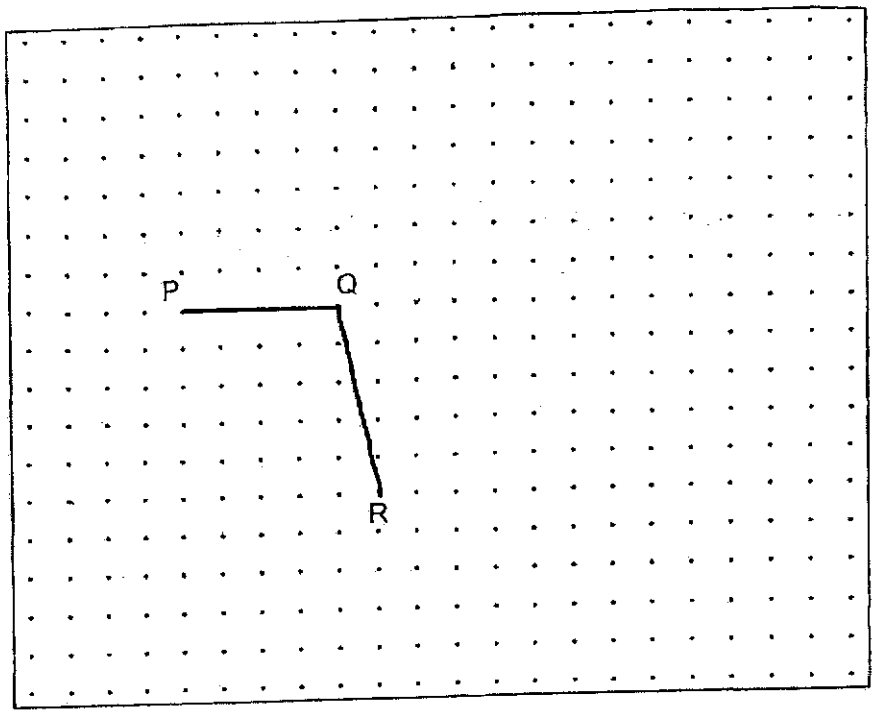
7 Two apples cost \$0.30 more than a pear. The pear costs \$0.45 more than each apple. How much will 2 such pears and 1 such apple cost altogether?

Ans: _____ [3]

8 At first, Mary had 60 erasers and 85 pencils. After she gave away some erasers and 20% of the pencils, she had a total of 118 erasers and pencils left. How many erasers did Mary give away?

Ans: _____ [3]

9 Lines PQ and QR are drawn on a square grid inside a box.



By joining dots on the grid with straight lines,

(a) draw a trapezium PQRS such that PQ is parallel to SR and SR is twice the length of PQ.

[1]

(b) draw a rhombus QRYZ such that it does not overlap with trapezium PQRS.

[2]

10 A bag contained some green balls and some yellow balls in the ratio 4 : 11. The number of green balls in the bag is 180.

(a) How many yellow balls are there in the bag?

Ans: (a) _____ [1]

(b) Mrs Singh added some red balls into the bag.

Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (√) to indicate your answer.

Statement	True	False	Not possible to tell
The total number of balls in the bag is 645.			
The ratio of the number of red balls to the number of green balls is 3 : 8.			
After Mrs Singh packed the yellow balls equally into 3 boxes, the number of yellow balls in each box is less than the number of green balls in the bag.			

[2]

11 Sam read 35 pages more than $\frac{2}{7}$ of his storybook. There were 175 pages left to be read.

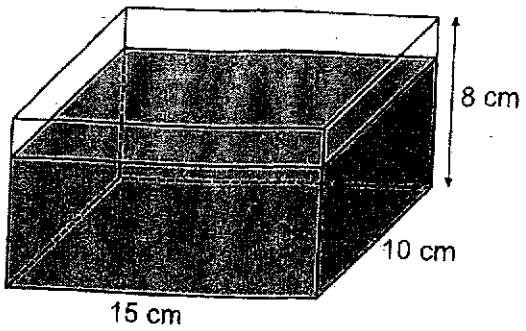
(a) What was the total number of pages in his storybook?

Ans: (a) _____ [3]

(b) How many pages did Sam read?

Ans: (b) _____ [1]

12 Kevin had a pail containing 6500 ml of water. He poured water from the pail into an empty rectangular container measuring 15 cm by 10 cm by 8 cm until the rectangular container was $\frac{5}{6}$–filled with water.



(a) Find the volume of water Kevin poured into the rectangular container.

Ans: (a) _____ [1]

(b) The remaining amount of water left in the pail was then poured into empty identical bottles. Each bottle was filled to the brim. The capacity of each bottle was 575 ml. How many such bottles were completely filled with water?

Ans: (b) _____ [3]

13 A factory worker packed 880 marbles into four boxes, A, B, C and D. Box A had the greatest number of marbles and Box D had the least number of marbles. The difference in the number of marbles between Box A and the number of marbles in the other three boxes were 14, 114 and 312.

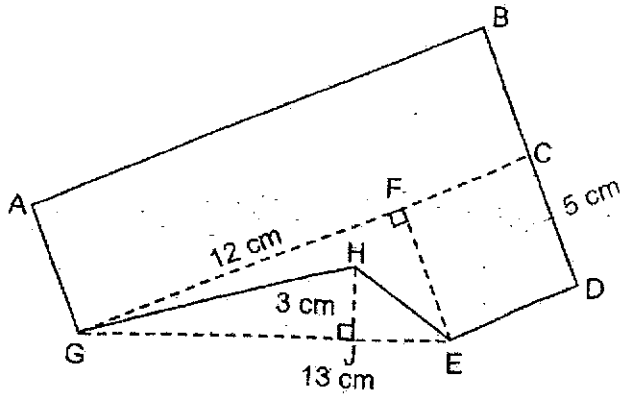
(a) Find the difference in the number of marbles between Box B and Box C.

Ans: (a) _____ [1]

(b) How many marbles were there in Box D?

Ans: (b) _____ [3]

14 The outline of figure ABDEHG below is formed by a square, a rectangle and 2 triangles. BCD, GJE and GFC are straight lines. EG = 13 cm, FG = 12 cm, HJ = 3 cm and BC = CD = 5 cm.



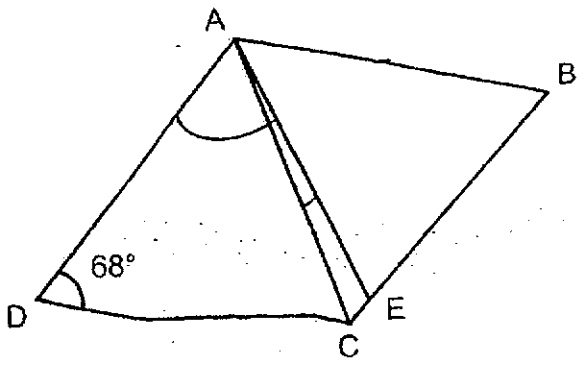
(a) Find the area of triangle GHE.

Ans: (a) _____ [1]

(b) Find the area of figure ABDEHG.

Ans: (b) _____ [3]

15 In the figure below, ABCD is a rhombus. AE = CD and $\angle ADC = 68°$.



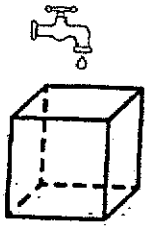
(a) Find $\angle DAC$.

Ans: (a) _____ [1]

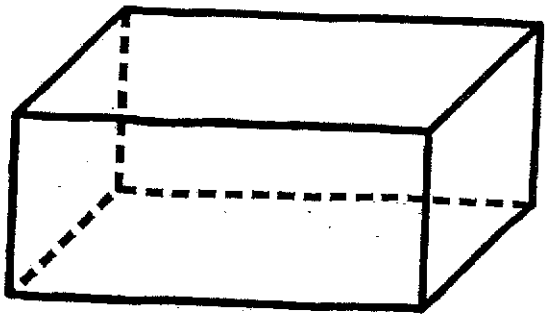
(b) Find $\angle CAE$.

Ans: (b) _____ [3]

16 A tap was turned on to fill an empty 68-litre tank. It took 8 minutes to fill the tank completely.



68-litre tank



700-litre tank

(a) What was the rate of flow of water from the tap in litres per minute?

Ans: (a) _____ [2]

(b) The same tap was used to fill an empty 700-litre tank and was turned off after 75 minutes. How much more water was needed to completely fill the 700-litre tank?

Ans: (b) _____ [3]

17 Eric uses grey squares and white squares to form figures that follow a pattern as shown below.

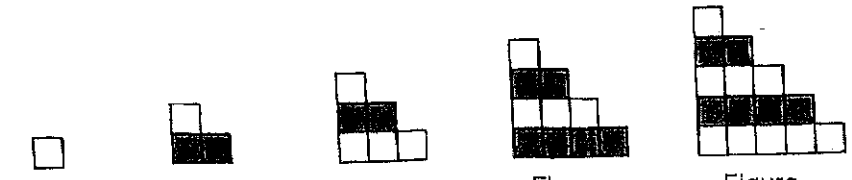


Figure 1 Figure 2 Figure 3 Figure 4 Figure 5

(a) The table below shows the number of grey squares and white squares for the first five figures. Complete the table for Figure 6.

Figure Number	1	2	3	4	5	6
Number of grey squares	0	2	2	6	6	
Number of white squares	1	1	4	4	9	
Total number of squares	1	3	6	10	15	

[1]

(b) Find the number of white squares in Figure 10.

Ans: (b) _____ [2]

(c) Find the total number of squares in Figure 77.

Ans: (c) _____ [2]

End of Paper

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2024

PRIMARY 5

MATHEMATICS PAPER 1 (BOOKLET A)

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
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3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 5 ( )

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 (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

(20 marks)

1 In the number 87.85, the digit _____ is in the tenths place.

(1) 8
(2) 7
(3) 6
(4) 5

(3)

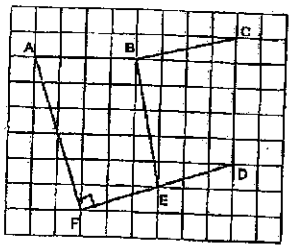
2 Express 7045 grams in kilograms.

(1) 7.045 kg
(2) 7.45 kg
(3) 70.45 kg
(4) 704.5 kg

$7045g = 7.045kg$

(1)

3 In the square grid below, which line is perpendicular to FD?



(1) AF
(2) BC
(3) BE
(4) ED

(1)

4 A printer can print 12 pages in 60 seconds. How long will this printer take to print 30 pages?

(1) 24 seconds
(2) 120 seconds
(3) 126 seconds
(4) 150 seconds

12 pages → 60s
1 page → $\frac{60}{12}$ s
= 5s
30 pages → 30 × 5s
= 150s

(4)

5 Susan baked 80 cupcakes. 56 of them were strawberry cupcakes and the rest were chocolate cupcakes. What percentage of the cupcakes baked were strawberry cupcakes?

(1) 24%
(2) 30%
(3) 56%
(4) 70%

$\frac{56}{80} \times 100\%$
$= 70\%$

(4)

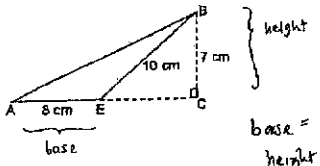
6 Muthu had $220. He spent 20% of his money. How much money did he spend?

(1) $11
(2) $44
(3) $176
(4) $200

$\frac{20}{100} \times 220$
$= 44$

(2)

7 In the figure below, AEC is a straight line and BC is perpendicular to AC. AE = 8 cm, BE = 10 cm and BC = 7 cm. What is the area of triangle ABE?



height

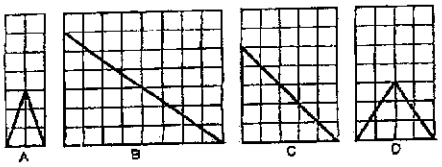
base = 8cm
height = 7cm

$\frac{1}{2} \times 8 \times 7 = 28$

(1) 28 cm²
(2) 40 cm²
(3) 56 cm²
(4) 80 cm²

(1)

8 In the square grids below, which of the following is true for the following triangles?



(1) B is an obtuse-angled triangle. (B is a right-angled Δ)
(2) C is an equilateral triangle. (-the longer side is not the same length as the other 2)
(3) A and D are isosceles triangles. True (3)
(4) B and D are right-angled triangles. (D is not a right-angled triangle)

4

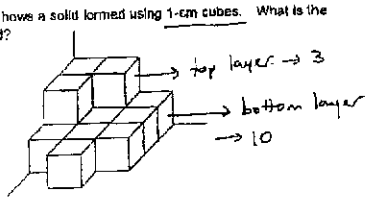
9 In a class of 45 children, 27 are girls and the rest are boys. What is the ratio of the number of boys to the number of girls?

45 − 27 = 18 boys

B : G
18 : 27
÷9 ÷9
= 2 : 3 (1)

(1) 2 : 3
(2) 3 : 2
(3) 3 : 5
(4) 5 : 3

10 The figure below shows a solid formed using 1-cm cubes. What is the volume of the solid?



10 + 3 = 13

(4)

(1) 9 cm³
(2) 10 cm³
(3) 12 cm³
(4) 13 cm³

6

11 $\frac{1}{3}$ of a number is 15. What is the number?

$\frac{1}{3}$ of X → 15

$\frac{3}{3}$ of X → 15 × 3
= 45

(4)

(1) 5
(2) 12
(3) 18
(4) 45

12 Arrange the following fractions from the smallest to the greatest.

$\frac{1}{10}$, $\frac{2}{7}$, $\frac{1}{3}$, $\frac{2}{21}$

$\frac{1}{10} \to \frac{2}{20}$ $\frac{1}{3} \to \frac{2}{6}$

Smallest Greatest

(1) $\frac{1}{3}$, $\frac{1}{10}$, $\frac{2}{7}$, $\frac{2}{21}$
(2) $\frac{2}{21}$, $\frac{2}{7}$, $\frac{1}{10}$, $\frac{1}{3}$
(3) $\frac{2}{21}$, $\frac{1}{10}$, $\frac{2}{7}$, $\frac{1}{3}$
(4) $\frac{1}{10}$, $\frac{1}{3}$, $\frac{2}{21}$, $\frac{2}{7}$

(3)

Comparing
$\frac{2}{20}, \frac{2}{7}, \frac{2}{6}, \frac{2}{21}$
Same numerators, bigger denominators are smaller fractions
Hence, smallest → greatest.
$\frac{2}{21}, \frac{2}{20}, \frac{2}{7}, \frac{2}{6}$
$\frac{1}{10}$ $\frac{1}{3}$
$= \frac{2}{21}, \frac{1}{10}, \frac{2}{7}, \frac{1}{3}$

8

13 Find the average of the following 5 numbers.

0, 24, 36, 36, 44

$\frac{0 + 24 + 36 + 36 + 44}{5}$ (60, 80)

$= \frac{60 + 80}{5} = \frac{140}{5}$
= 28 (1)

(1) 28
(2) 35
(3) 36
(4) 140

14 Peter made a total of 12 800 keychains in 40 weeks.
The number of keychains he made each day from Monday to Wednesday was twice as many as the number of keychains he made each day from Thursday to Friday.
He did not make any keychains on Saturdays and Sundays.
How many keychains did he make every Friday?

Drawing model.

Mon
Tue
Wed
Thu
Fri

$\frac{12800}{40}$ = 320 (1 week)

8u = 320
1u = 320 ÷ 8
= 40

(2)

7

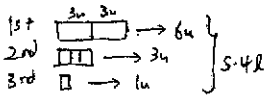
15 A tank contained 5.4 ℓ of water. All the water was poured into three empty bottles. The first bottle contained twice as much water as the second bottle. The second bottle contained 3 times as much water as the third bottle. How much water was there in the second bottle?

(1) 2.70 ℓ

(2) 1.82 ℓ

(3) 0.90 ℓ

(4) 0.54 ℓ



$10u = 5{\cdot}4\ell$

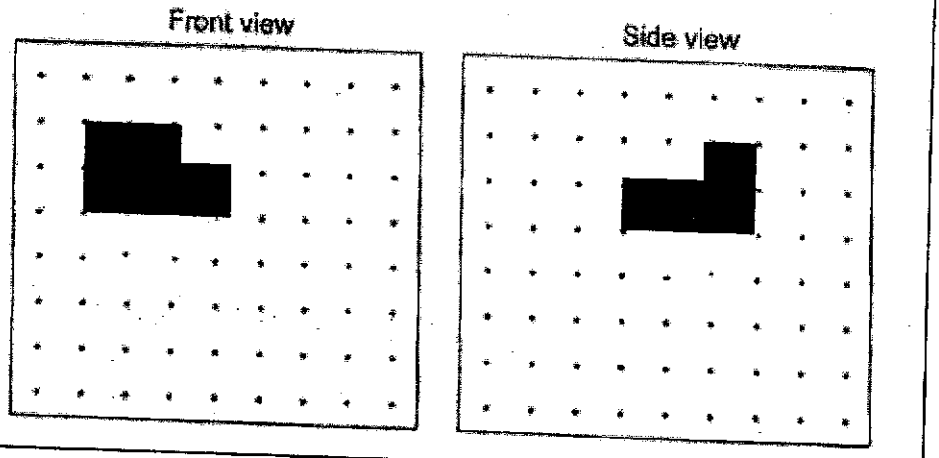
$1u = \frac{5{\cdot}4\ell}{10}$

$= 0{\cdot}54\ell$

2

Q16 7

Q17	$\frac{1}{8}$ = 0.125 $\frac{3}{8}$ = 0.125 x 3 = 0.375
Q18	Since AOC is a straight line, ∠AOC = 180° Right angle = 90° 180°- 90°- 31°= 59°
Q19	180° - 84° - 43° = 53°
Q20	81 ÷ 9 = 9 54 ÷ 9 = 6 Ans: 6
Q21	6 x 6 x 15 = 540
Q22	2 x 5 = 10 7 x 12 = 84 $\frac{2}{7}$ x $\frac{5}{12}$ = $\frac{5}{42}$
Q23	4 bottles × $\frac{3}{4}$ litres = 3 litres 3 litres - $\frac{3}{10}$ litres = $2\frac{7}{10}$ litres = 2.7 litres
Q24	∠DAB + ∠ABC = 180° ∠DAB = 180°- 62°= 118°
Q25	\$24.50 × 7 = \$171.50 \$171.50 - \$5 = \$166.50
Q26	396 × 65 = 25740 25740 = 26000
Q27	\$50 x $\frac{8}{100}$= 4

Q28	
Q29	12 × 4 = 48 48 × 2 = 96
Q30	63 - 7 = 56 11 - 7 = 4 56 ÷ 4 = 14 14-1 = 13 (original number)

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2024

PRIMARY 5

MATHEMATICS PAPER 2

Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is allowed.

Name: _____ ( )

Class: Primary 5 ( )

Parent's Signature: _____

Booklet A	**/ 20**
Booklet B	**/ 25**
Paper 2	**/ 55**
Total	**/ 100**

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 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)

1 Mr Tan used $2\frac{1}{8}$ ℓ of water on Monday. He used $3\frac{2}{5}$ ℓ of water on Tuesday. How much water did Mr Tan use on both days? Give your answer as a mixed number in the simplest form.

$2\frac{1}{8} + 3\frac{2}{5} = 5\frac{21}{40}$

Ans: $5\frac{21}{40}$ ℓ

2 Sandy jogged $4\frac{4}{5}$ km each day last week. What was the total distance she jogged from Wednesday to Saturday last week? Give your answer as a mixed number in the simplest form.

Wed, Thu, Fri, Sat } 4 days. $4\frac{4}{5} \times 4 = 19\frac{1}{5}$

Ans: $19\frac{1}{5}$ km

3 The average mass of 6 girls and 1 boy is 47 kg. The average mass of the girls is 45 kg. What is the mass of the boy?

6 girls + 1 boy = 7 kids

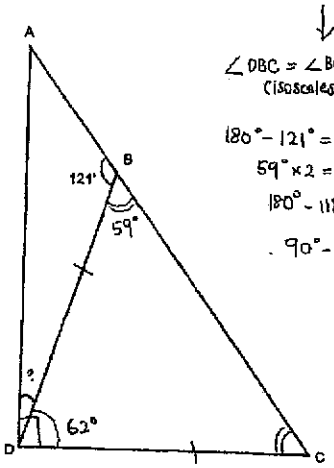
$47 \times 7 = 325$

$45 \times 6 = 270$

$325 - 270 = 59$

Ans: 59 kg

4 ACD is a right-angled triangle. $\angle ADC = 90°$. BD = CD. Find $\angle ADB$.



$\angle DBC = \angle BCD$ (isosceles △)

$180° - 121° = 59°$

$59° \times 2 = 118°$

$180° - 118° = 62°$

$90° - 62° = 28°$

Ans: 28

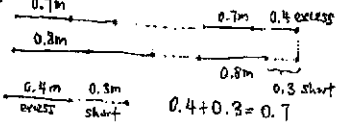
5 Meili has a roll of ribbon to give to a group of friends. If she gives 0.7 m of ribbon to each of her friends, she will have 0.4 m of ribbon left. If she gives 0.8 m of ribbon to each of her friends, she will be short of 0.3 m of ribbon. What is the length of the roll of ribbon Meili has?

Method 1

No. of friends	1	2	3	4	5	6	7
×0.7	0.7	1.4	2.1	2.8	3.5	4.2	4.9
+0.4	1.1	1.8	2.5	3.2	3.9	4.6	5.3
×0.8	0.8	1.6	2.4	3.2	4.0	4.8	5.6
−0.3	0.5	1.3	2.1	2.9	3.7	4.5	5.3

Same number under same no. of friends.

Method 2



0.4 m excess, 0.3 m short

$0.4 + 0.3 = 0.7$

$0.8 - 0.7 = 0.1$

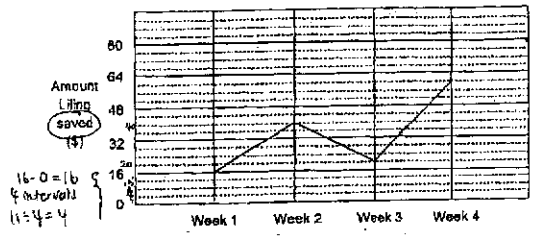
$0.7 \div 0.1 = 7$

$7 \times 0.7 + 0.4 = 5.3$

Ans: 5.3 m

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]

6 The line graph below shows the amount of money Liling saved each week over a period of 4 weeks.



16 - 0 = 16
4 intervals
16 ÷ 4 = 4

(a) In which week did Liling save twice the amount of money she saved in Week 3?

20 × 2 = 40 → Week 2
↳ $20

Ans: (a) Week 2 [1]

(b) How much did Liling save in Week 4?

64 - 4 = 60

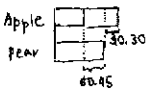
Ans: (b) $60 [1]

(c) How much less money did Liling save in Week 1 than in Week 2?

Week 1 : $16
Week 2 : $40
40 - 16 = 24

Ans: (c) $24 [1]

7 Two apples cost $0.30 more than a pear. The pear costs $0.45 more than each apple. How much will 2 such pears and 1 such apple cost altogether?



Cost of 1 apple = 0.45 + 0.3
= 0.75
1 pear = 0.75 + 0.45
= 1.2
2 pear + 1 apple = 1.2 × 2 + 0.75
= 3.15

Ans: $3.15 [3]

8 At first, Mary had 60 erasers and 85 pencils. After she gave away some erasers and 20% of the pencils, she had a total of 118 erasers and pencils left. How many erasers did Mary give away?

20% of 85 pencils → 17 pencils (multiply)

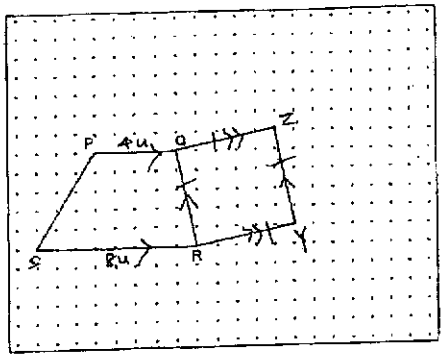
85 - 17 = 68 (no. of penuls left)

118 - 68 = 50 (no. of erasers left)

60 - 50 = 10

Ans: 10 [3]

9 Lines PQ and QR are drawn on a square grid inside a box.



By joining dots on the grid with straight lines,

(a) draw a trapezium PQRS such that PQ is parallel to SR and SR is twice the length of PQ. [1]

(b) draw a rhombus QRYZ such that it does not overlap with trapezium PQRS. [2]

(more than 1 possible answer)

10 A bag contained some green balls and some yellow balls in the ratio 4 : 11. The number of green balls in the bag is 180.

(a) How many yellow balls are there in the bag?

Green : Yellow
4 : 11
180 : 495
×45 ✓ ÷2 ×45

4u = 180
1u = 180 ÷ 4
= 45
11u = 11 × 45
= 495

Ans: (a) 495 [1]

(b) Mrs Singh added some red balls into the bag.

Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

	Statement	True	False	Not possible to tell
(1)	The total number of balls in the bag is 645.		✓	
(2)	The ratio of the number of red balls to the number of green balls is 3 : 8.		✓	
(3)	After Mrs Singh packed the yellow balls equally into 3 boxes, the number of yellow balls in each box is less than the number of green balls in the bag.	✓		

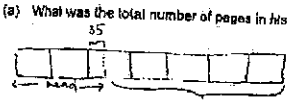
Statement 1 :
Green ball → 180
Yellow balls → 495
Total → 180 + 495
= 675
675 > 645.
Statement is always false.

Statement 2 :
Red : Green
3 : 8
67.5 : 180 ÷2
180 ÷ 8 = 22.5
22.5 × 3 = 67.5
Not possible for balls to not be a whole no.

Statement 3 : [2]
Yellow balls → 495
Each box : 495 ÷ 3
= 165
Green balls → 180
165 is less than 180.
statement is true.

11 Sam read 35 pages more than $\frac{2}{7}$ of his storybook. There were 175 pages left to be read.

(a) What was the total number of pages in his storybook?



5 units + 35 = 210 (5 units)
1 u = 210 ÷ 5
= 42
7u = 42 × 7
= 294

Ans: (a) 294 [3]

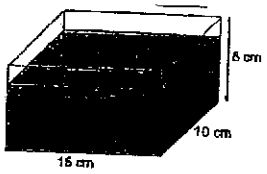
(b) How many pages did Sam read?

2u = 42 × 2
= 84
84 + 35 = 119

Ans: (b) 119 [1]

8

12 Kevin had a pail containing 6500 ml of water. He poured water from the pail into an empty rectangular container measuring 15 cm by 10 cm by 8 cm until the rectangular container was $\frac{5}{6}$ filled with water.



(a) Find the volume of water Kevin poured into the rectangular container.

$15 \times 10 \times 8 \times \frac{5}{6} = 1000$

Ans: (a) 1000 cm³ [1]

(b) The remaining amount of water left in the pail was then poured into empty identical bottles. Each bottle was filled to the brim. The capacity of each bottle was 575 ml. How many such bottles were completely filled with water?

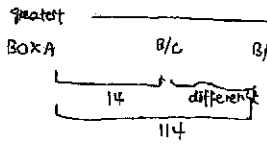
6500 − 1000 = 5500 (remaining)
5500 ÷ 575 = 9.56...
9 filled bottles; some extra

Ans: (b) 9 [3]

9

13 A factory worker packed 880 marbles into four boxes, A, B, C and D. Box A had the greatest number of marbles and Box D had the least number of marbles. The difference in the number of marbles between Box A and the number of marbles in the other three boxes were 14, 114 and 312.

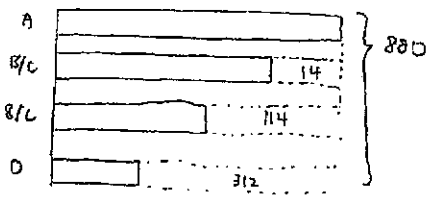
(a) Find the difference in the number of marbles between Box B and Box C.



114 − 14 = 100

Ans: (a) 100 [1]

(b) How many marbles were there in Box D?

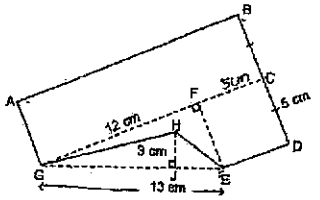


880 + 14 + 114 + 312 = 1320
4 units of A = 1320
1 unit = 1320 ÷ 4
= 330
330 − 312 = 18

Ans: (b) 18 [3]

10

14 The outline of figure ABDEHG below is formed by a square, a rectangle and 2 triangles. BCD, GJE and GFC are straight lines. EG = 13 cm, FG = 12 cm, HJ = 3 cm and BC = CD = 5 cm.



(a) Find the area of triangle GHE.

$\frac{1}{2} \times 13 \times 3 = 19.5$

Ans: (a) 19.5 cm² [1]

(b) Find the area of figure ABDEHG.

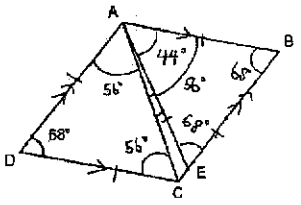
Area of △ GFE = $\frac{1}{2} \times 12 \times 5$
= 30
Area of sq. FCDE = 5 × 5
= 25
Area of rect. ABCG = (12 + 5) × 5
= 85
Total area = 30 + 25 + 85
= 120.5

Area of GFE − GHE
= 30 − 19.5
= 10.5

Ans: (b) 120.5 cm² [3]

11

15 In the figure below, ABCD is a rhombus. AE = CD and ∠ADC = 68°.



(a) Find ∠DAC.

$(180° - 68°) \div 2 = 56°$

$\angle DAC = \angle DCA$ (isosceles △)

Ans: (a) 56° [1]

(b) Find ∠CAE.

$\angle BAC = \angle DCA = 56°$

$\angle ADC = \angle ABC = 68°$

Since AB = AE, △ ABE is an isosceles △

$\angle ABE = \angle AEB = 68°$

$\angle EAB = 180° - 68° - 68°$

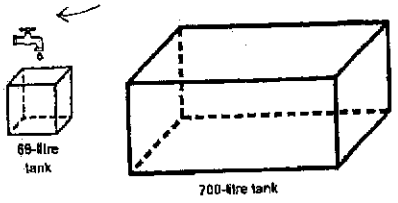
$= 44°$

$\angle CAE = 56° - 44°$

$= 12°$

Ans: (b) 12° [3]

16 A tap was turned on to fill an empty 68-litre tank. It took 8 minutes to fill the tank completely.



(a) What was the rate of flow of water from the tap in litres per minute?

68 ℓ → 8 min ÷8

68 ÷ 8 → 1 min

= 8.5

2 ÷ 8

Ans: (a) 8.5 ℓ/min [2]

(b) The same tap was used to fill an empty 700-litre tank and was turned off after 75 minutes. How much more water was needed to completely fill the 700-litre tank?

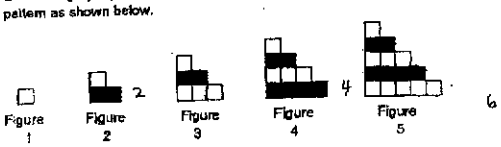
8.5 ℓ → 1 min ×75

637.5 ℓ → 75 min

700 − 637.5 = 62.5

Ans: (b) 62.5 ℓ [3]

17 Eric uses grey squares and white squares to form figures that follow a pattern as shown below.



(a) The table below shows the number of grey squares and white squares for the first five figures. Complete the table for Figure 6.

Figure Number	1	2	3	4	5	6
Number of grey squares	0	2	2	5	5	12
Number of white squares	1	1_1	4_2	4_2	9_3	9_3
Total number of squares	1	3	6	10	15	21
		+2	+3	+4	+5	+6

Pairs

[1]

(b) Find the number of white squares in Figure 10.

Even figure no. → divided by 2 → $\square^2$

$10 \div 2 = 5$

$5^2 = 25$

Ans: (b) 25 [2]

(c) Find the total number of squares in Figure 77.

Figure	Total no.
1	1
2	1+2 = 3
3	1+2+3 = 6
4	1+2+3+4 = 10
↓	↓

Total sq. in figure 77

$= 1+2+3+\ldots+75+76+77$

$= (76+1) \times 38$ pairs $+77$

$= 3003$

Ans: (c) 3003 [2]

End of Paper

NANYANG PRIMARY SCHOOL

END-OF-YEAR EXAMINATION 2024

PRIMARY 5

MATHEMATICS PAPER 2

Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is allowed.

Name: Student Ans Key ( )

Class: Primary 5 ( )

Parent's Signature: _____

Booklet A	/ 20
Booklet B	/ 25
Paper 2	/ 55
Total	/ 100

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