NANYANG PRIMARY SCHOOL
END-OF-YEAR EXAMINATION
2025

# PRIMARY 5

# MATHEMATICS
# PAPER 1
# (BOOKLET A)

Total Time for Booklets A and B: 1 hour 10 minutes

Additional materials: Optical Answer Sheet (OAS)

**INSTRUCTIONS TO CANDIDATES**

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

Name: _____ (  )

Class: Primary 5 (  )

This booklet consists of 13 printed pages and 3 blank pages.

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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 (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. (26 marks)

---

1 In 96.452, which digit is in the tenths place?

(1) 5

(2) 2

(3) 9

(4) 4

2 Which of the following is the same as 30 400 m?

(1) 3.04 km

(2) 30.04 km

(3) 30.4 km

(4) 304 km

3 A photocopier prints 40 pages per minute. At the same rate, how many minutes will it take to print 240 pages?

(1) 12

(2) 8

(3) 6

(4) 4

4 Priya baked 72 chocolate buns, 80 custard buns and 48 kaya buns. What percentage of the buns Priya baked were kaya buns?

(1) 24%

(2) 36%

(3) 40%

(4) 48%

5 There were 750 people at a concert. 30% of them were adults and the rest were children. How many adults were at the concert?

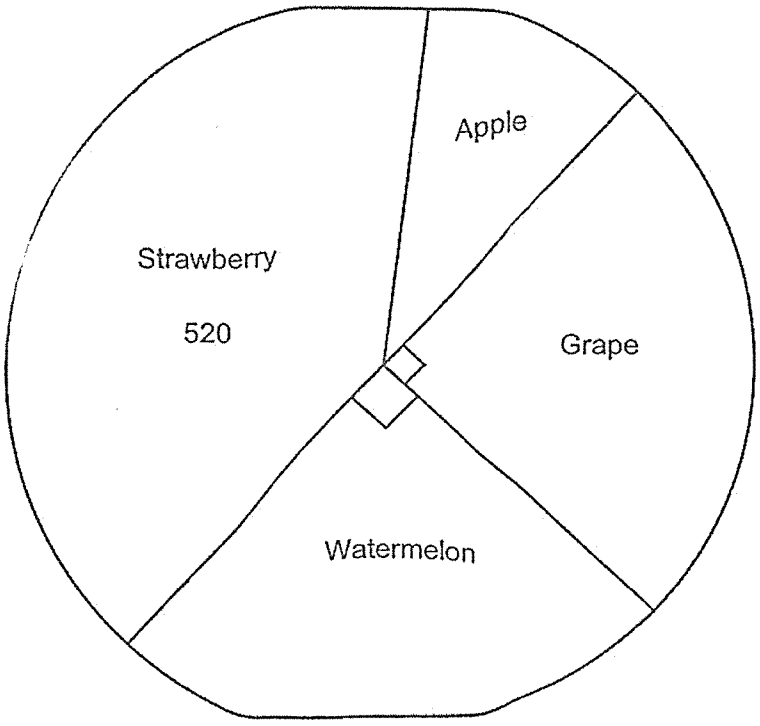
(1) 70

(2) 225

(3) 300

(4) 525

6 The pie chart below shows the number of fruits sold by Mr Tan. The number of strawberries sold was 4 times as many as the number of apples sold.




How many watermelons were sold?

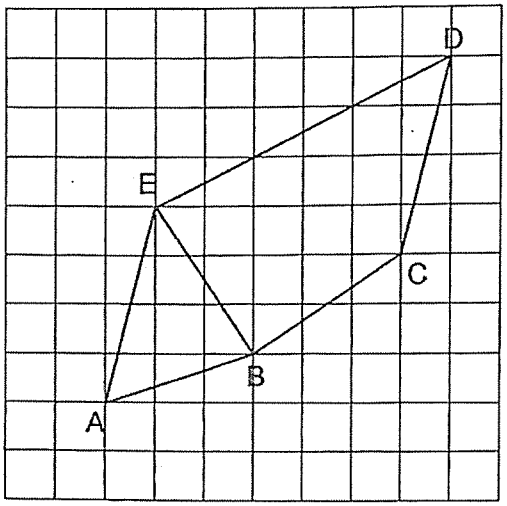
(1) 130

(2) 260

(3) 325

(4) 650

7 Which pair of lines are parallel?



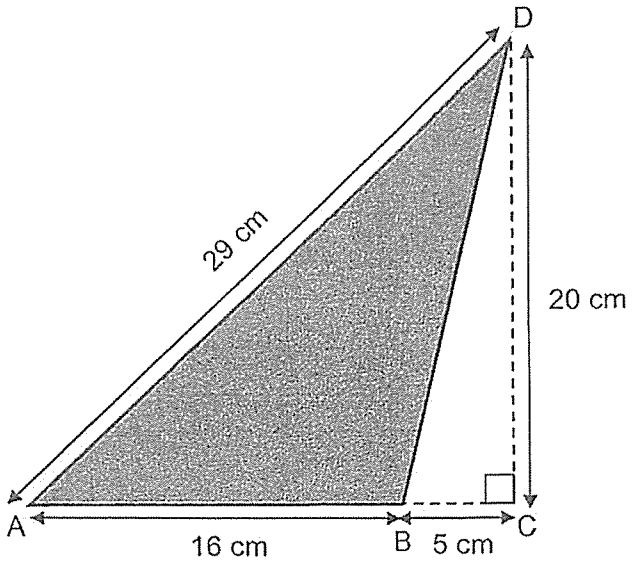

(1) BC and ED

(2) AE and CD

(3) EB and ED

(4) EB and BC

8 Find the area of shaded triangle ABD.



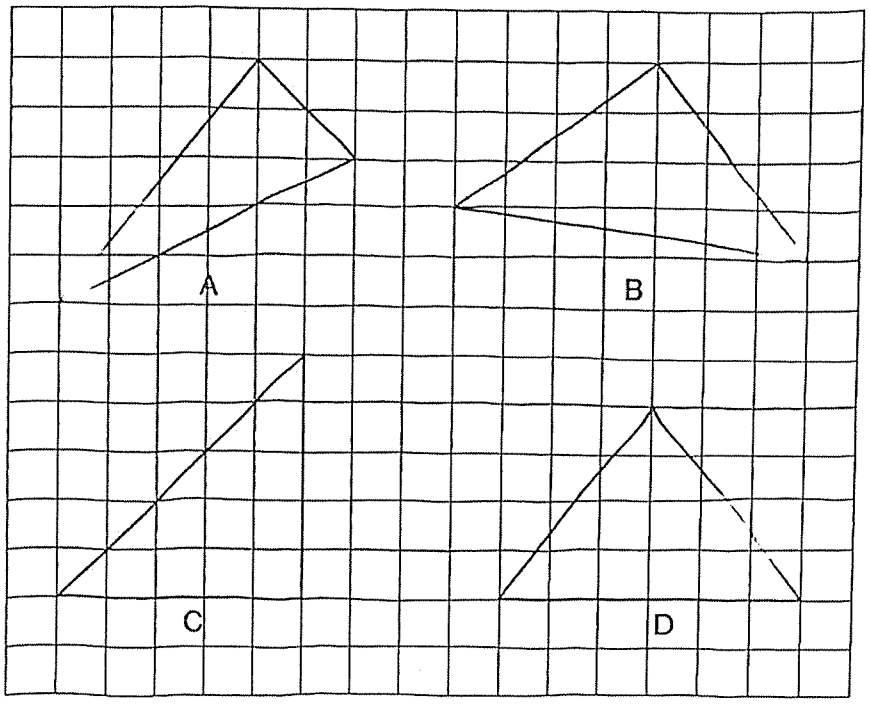

(1) 160 $cm^2$

(2) 210 $cm^2$

(3) 232 $cm^2$

(4) 320 $cm^2$

9 Which of the following are right-angled triangles?



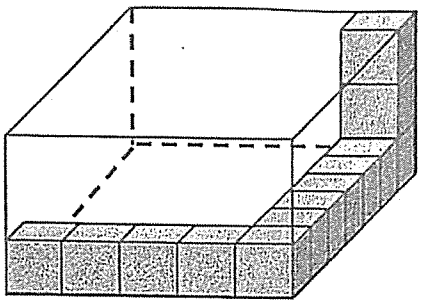

(1) A and B

(2) A and C

(3) B and C

(4) B and D

10 A rectangular tank is partially filled with 1-cm cubes as shown below. How many more such cubes are needed to fill the tank completely?



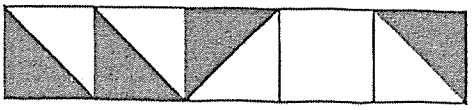
(1) 13

(2) 90

(3) 92

(4) 105

11 The figure is made up of 5 squares. Some squares are divided equally into 2 triangles. What fraction of the figure is shaded?



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

(2) $\frac{1}{2}$

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

(4) $\frac{4}{9}$

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

$\frac{3}{4}$ $\frac{1}{2}$ $\frac{5}{8}$

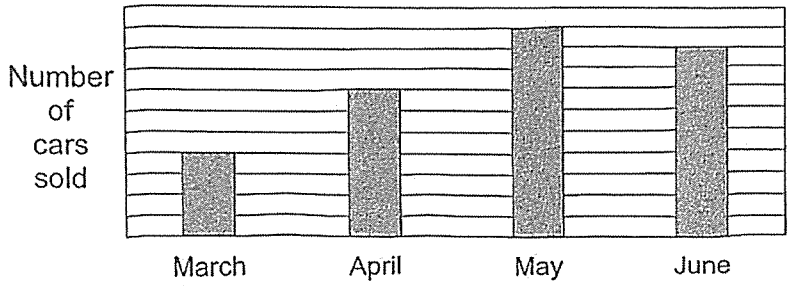
| | Smallest | | Largest |
|---|---|---|---|
| (1) | $\frac{1}{2}$ | $\frac{3}{4}$ | $\frac{5}{8}$ |
| (2) | $\frac{5}{8}$ | $\frac{3}{4}$ | $\frac{1}{2}$ |
| (3) | $\frac{3}{4}$ | $\frac{5}{8}$ | $\frac{1}{2}$ |
| (4) | $\frac{1}{2}$ | $\frac{5}{8}$ | $\frac{3}{4}$ |

13 The table below shows the number of cars sold by a car shop from March to June.

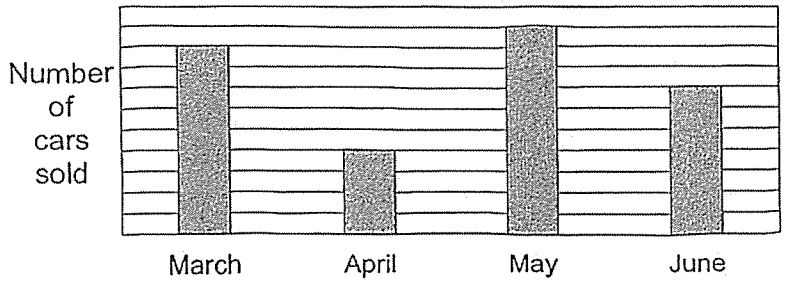
| Month | Number of cars sold |
|---|---|
| March | 28 |
| April | 16 |
| May | 40 |
| June | 36 |

Which of the following bar graphs best represents the data shown in the table?

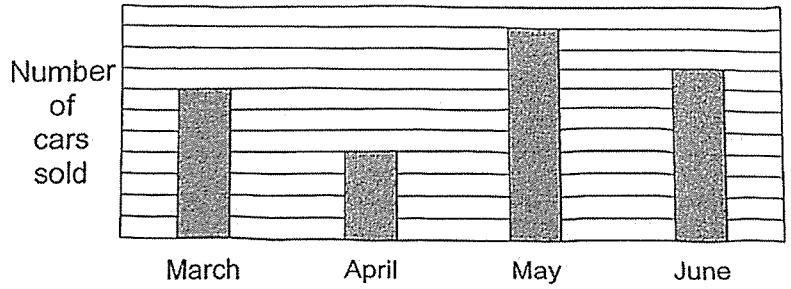
(1)



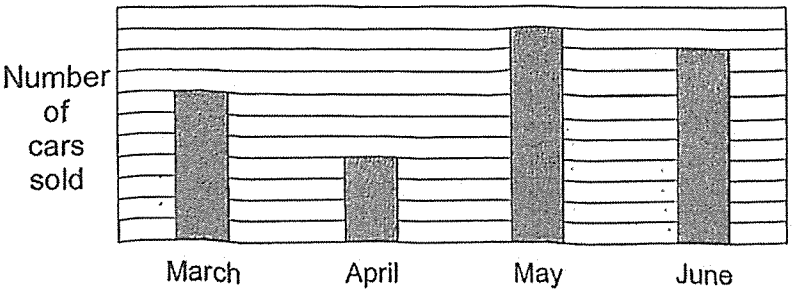

(2)



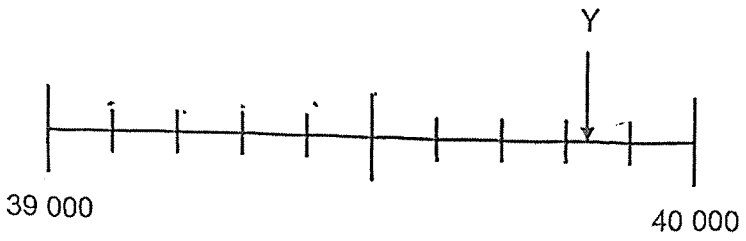

(3)




(4)



14 The figure below shows a number line. Which of the following is closest to the value of Y?




(1) 39 080

(2) 39 090

(3) 39 800

(4) 39 900

15 The cost of a laptop was $4098. A washing machine cost $1258 more than the laptop. Find the total cost of 70 such washing machines.

(1) $286 360

(2) $286 860

(3) $322 860

(4) $374 920

16 Mary had 52.8 ℓ of orange juice. She poured all the orange juice equally into 600 small cups. How many litres of orange juice did each small cup contain?

(1) 0.088

(2) 0.88

(3) 8.8

(4) 88

17 Jane and Ali cooked the same amount of soup to sell. When Jane packed her soup in packets of 2.5 ℓ, she had 1.5 ℓ of soup left unpacked. When Ali packed all his soup in packets of 1.5 ℓ, he had no soup remaining and had 5 more packets of soup than Jane. How much soup did Jane have at first?

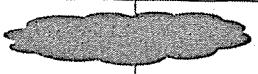
(1) 9 ℓ

(2) 16.5 ℓ

(3) 21.5 ℓ

(4) 29 ℓ

18 The table below shows the number of books read by students in a school. $\frac{5}{12}$ of the students read at least 4 books. Part of the table is smeared with ink.

| Number of books read | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Number of students | 66 | 74 | 20 |  | |

Which statement(s) is/are not possible to tell?

A The total number of students is 240.

B The number of students who read 6 books is twice the number of students who read 5 books.

C Most students read 3 books.

(1) B only

(2) C only

(3) B and C only

(4) A, B and C

NANYANG PRIMARY SCHOOL
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2025

# PRIMARY 5

# MATHEMATICS
# PAPER 1
# (BOOKLET B)

Total Time for Booklets A and B: 1 hour 10 minutes

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the space provided.
2. Do not turn over this 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.

Name: _____ (  )

Class: Primary 5 (  )

| Booklet B | / 24 |
|---|---|

This booklet consists of 12 printed pages and 4 blank pages.

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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)

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**19** (a) Find the value of $100 \div (24 - 14) + 8 \times 10$.

Ans: (a) _____

(b) Round 32 409 to the nearest hundred.

Ans: (b) _____

---

20 (a) Express $\frac{9}{4}$ as a decimal.

Ans: (a) _____

(b) Find the value of $3 \div 8$. Express your answer as a decimal correct to 2 decimal places.

Ans: (b) _____

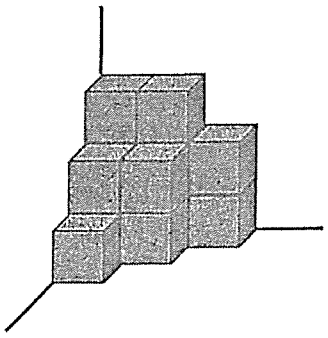
21 (a) Find the value of $\frac{7}{6} \times 5$. Express your answer as a mixed number.

Ans: (a) _____

(b) Find the value of $\frac{6}{7} \times \frac{14}{9}$. Express your answer as a mixed number in its simplest form.

Ans: (b) _____

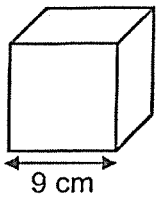
22 The solid below is made up of 1-cm cubes.



(a) How many 1-cm cubes are there in the solid?

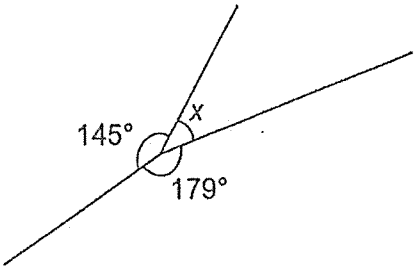
Ans: (a) _____

(b) What is the volume of the cube shown below?



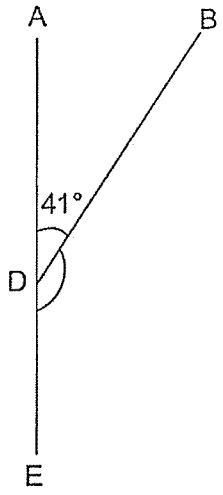

Ans: (b) _____ $cm^3$

23 (a) Find $\angle x$.



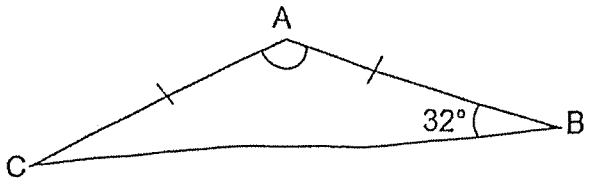

Ans: (a) _____°

(b) ADE is a straight line. Find $\angle$BDE.



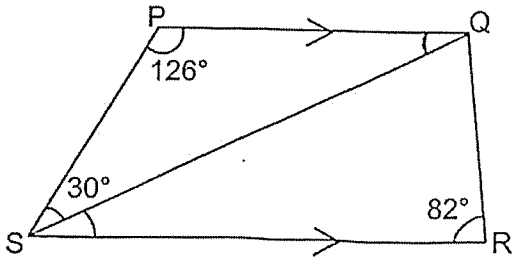

Ans: (b) _____°

24 (a) ABC is a triangle and AB = AC. Find ∠CAB.




Ans: (a) _____ °

(b) PQRS is a trapezium. PQ // SR, ∠QRS = 82°, ∠QPS = 126° and ∠PSQ = 30°. Find ∠QSR.




Ans: (b) _____ °

25 In a camp, $\frac{2}{7}$ of the children were girls and the rest were boys. There were 120 more boys than girls. How many boys were there?

Ans: _____

---

26 Aileen saved \$3.20 every day from 1st June 2025. A few days later, Bernard started to save. He saved an equal amount of money each day. At the end of 7th June 2025, Bernard saved \$14.40. At the end of 9th June 2025, Aileen's total savings and Bernard's total savings were the same. How much did Bernard save each day?

Ans: \$_____

---

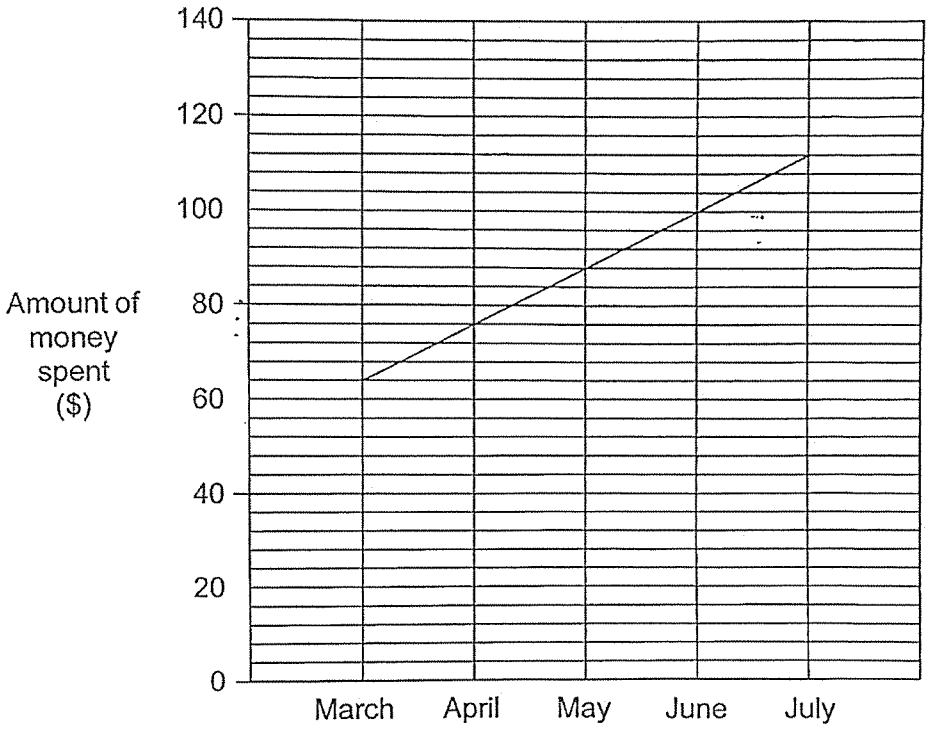
27 The table below shows the parking charges at a car park.

| Parking Charges | |
|---|---|
| For the first hour | \$1.90 |
| For every additional $\frac{1}{2}$ hour or part thereof | \$1.10 |

Mrs Sim parked her car at the car park for 3 h 40 min. How much did she pay in total for the parking charges?

Ans: \$_____

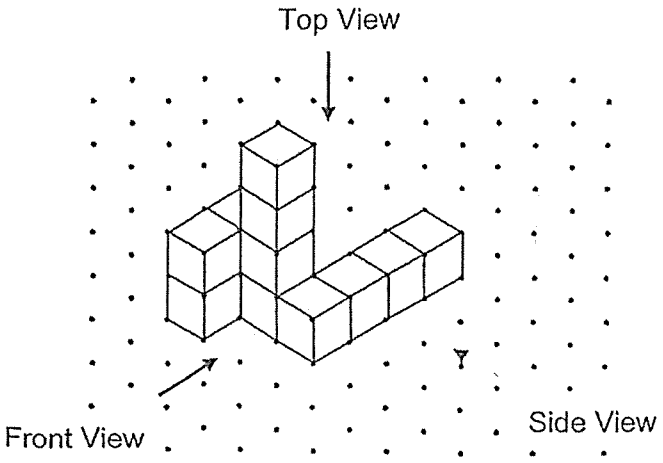
28 Jia Hao was given $120 each month. He spent some money and saved the remaining amount of money each month. The line graph below shows the amount of money he spent from March to July.




Find the total amount of money Jia Hao saved in May and June.

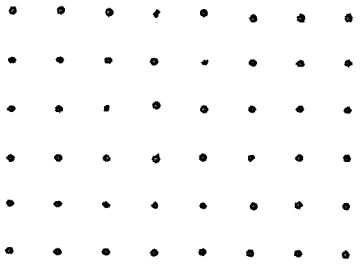
Ans: $_____

29 Ahmad stacked 12 unit cubes and glued them together to form the solid below.

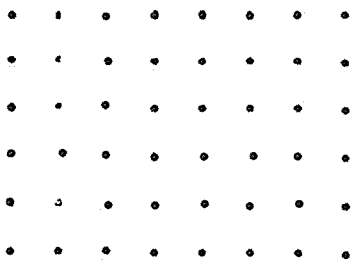



Draw the front view and the side view of the solid on the grids below.

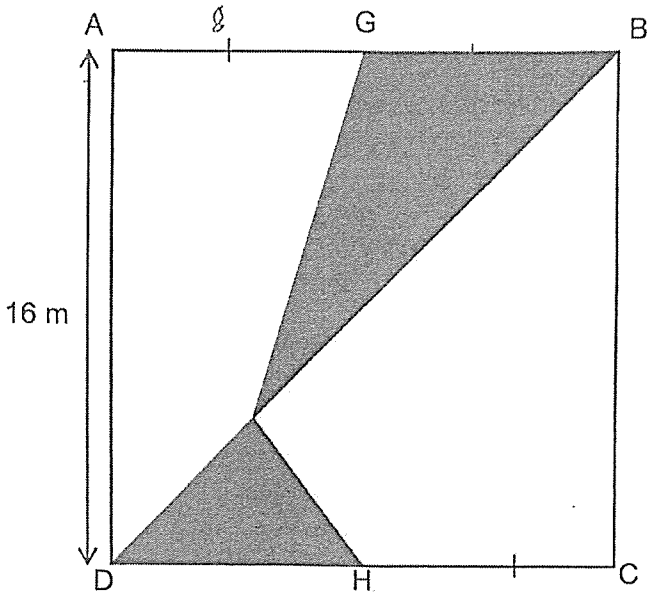
Front View



Side View



30 ABCD is a square and AG = GB = DH = HC. AGB and DHC are straight lines. Find the total area of the shaded triangles.




Ans: _____ $m^2$

End of Paper

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NANYANG PRIMARY SCHOOL
END-OF-YEAR EXAMINATION
2025

# PRIMARY 5

# MATHEMATICS
# PAPER 2

Time: 1 hour 20 minutes

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the space provided.
2. Do not turn over this 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 an approved calculator is allowed.

Name: _____ (  )

Class: Primary 5 (  )

Parent's Signature: _____

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

| | |
|---|---|
| **Booklet A** | **/ 26** |
| **Booklet B** | **/ 24** |
| **Paper 2** | **/ 50** |
| **Total** | **/ 100** |

This booklet consists of 16 printed pages and 4 blank pages.

BLANK PAGE

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)

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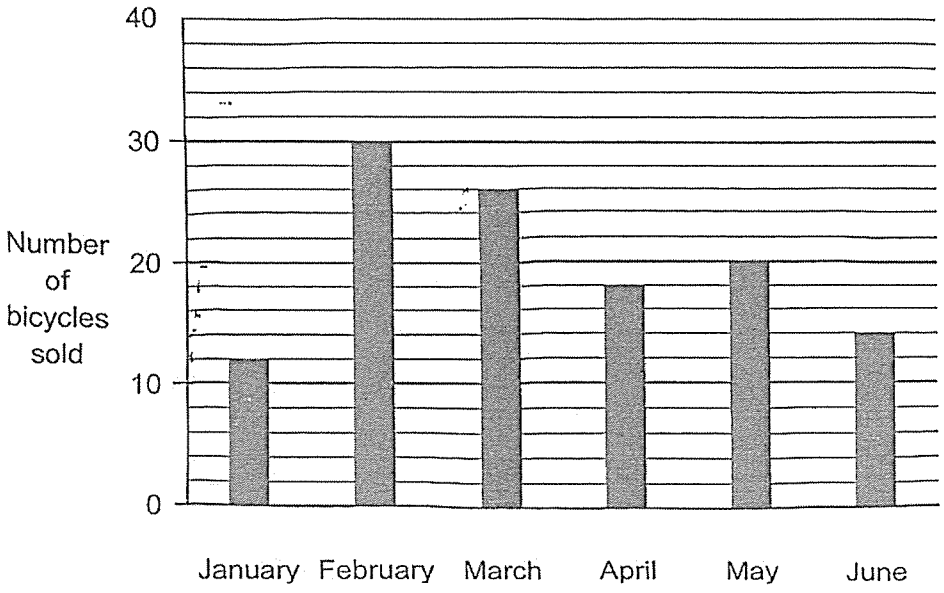
1 The bar graph below shows the number of bicycles sold at a shop from January to June.




How many bicycles were sold from January to May?

Ans: _____

---

2 The length of Rope A is $5\frac{3}{4}$ m. Rope B is $1\frac{3}{5}$ m shorter than Rope A. What is the length of Rope B? Express your answer as a mixed number.

Ans: _____ m

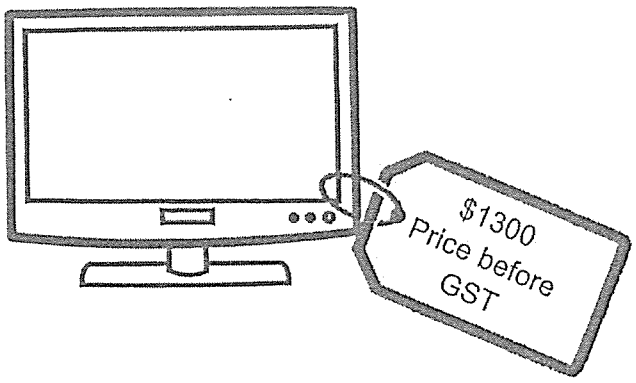
---

3 John bought 7 packets of potatoes. The mass of each packet of potatoes was $1\frac{3}{8}$ kg. Find the total mass of the 7 packets of potatoes that John bought. Express your answer as a mixed number.

Ans: _____ kg

---

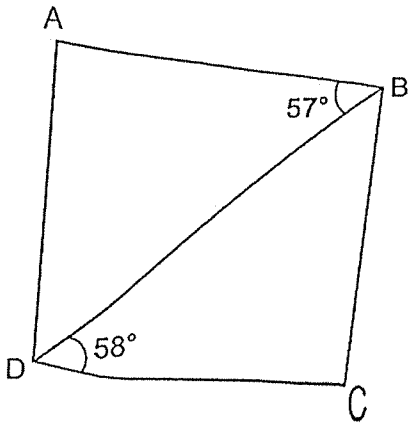
4 Wee Kiat bought a television set.




How much did Wee Kiat pay for the television set, including 9% GST?

Ans: $_____

5 ABCD is a quadrilateral. BCD is an isosceles triangle. BC = CD, $\angle BDC = 58°$ and $\angle ABD = 57°$.




The figure above is not drawn to scale. Each statement is either true, false, or not possible to tell from the information given. Put a tick (✓) to indicate your answer.

| Statement | True | False | Not possible to tell |
|---|---|---|---|
| $\angle BCD = 58°$. | | | |
| $\angle BAD = 64°$. | | | |
| ABCD is a rhombus. | | | |

A2

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 brackets [ ] at the end of each question or part-question. (40 marks)

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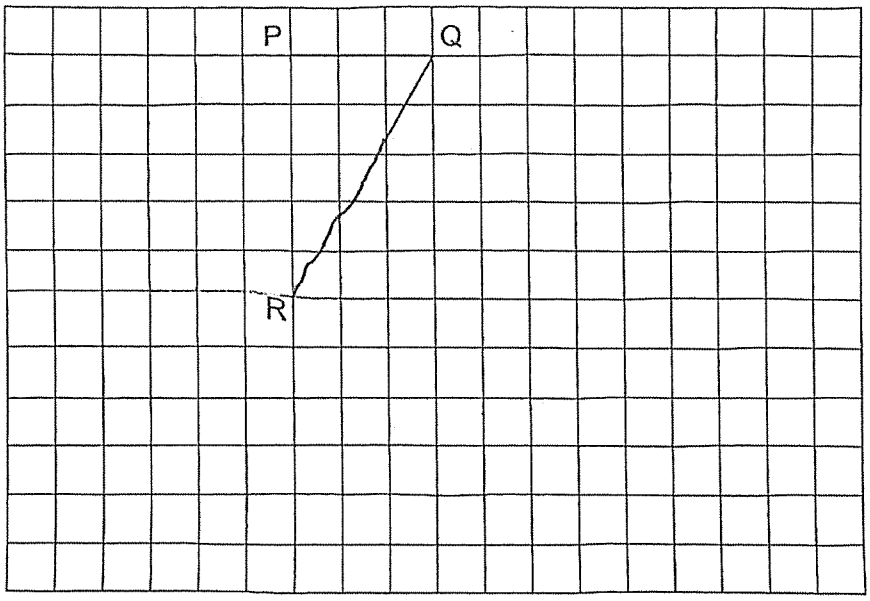
6 In the square grid, two sides of a parallelogram PQRS have been drawn.

(a) Complete the drawing of the parallelogram PQRS. [1]

(b) QR forms one side of a triangle QRT in which ∠QRT is a right angle and RQ = RT. Complete the drawing of the triangle QRT within the grid. Parallelogram PQRS does not overlap with triangle QRT. [2]

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7 Ryan baked 750 cookies. He sold 50% of the cookies and gave $\frac{2}{3}$ of the remaining cookies to his neighbour. He then ate some cookies and had 80 cookies left. What percentage of the cookies baked did Ryan eat?

Ans: _____% [3]

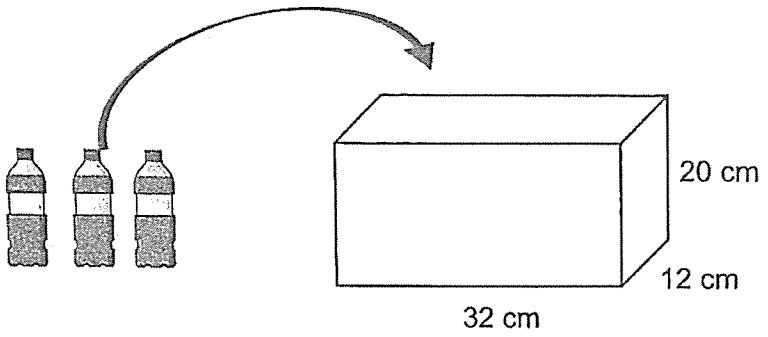
---

8 Charlene had $102 less than Bernice. After Charlene gave Bernice $90, Bernice had 5 times as much as what Charlene had left. How much money did Charlene have at first?

Ans: $_____ [3]

---

9 A rectangular tank measuring 32 cm by 12 cm by 20 cm was empty at first. There were 3 identical bottles which were completely filled with water. Mr Kim poured all the water from the 3 bottles into the tank. In the end, the tank was $\frac{1}{5}$ – filled with water.




(a) What was the volume of water in each bottle? Express your answer in litres.

Ans: (a) _____ ℓ [2]

(b) How much more water was needed to fill the tank to the brim?

Ans: (b) _____ $cm^3$ [2]

10 There were some fruits in a crate. $\frac{4}{9}$ of them were strawberries and $\frac{2}{3}$ of the remainder were mangoes. The rest of them were pineapples. There were 105 more strawberries than pineapples.

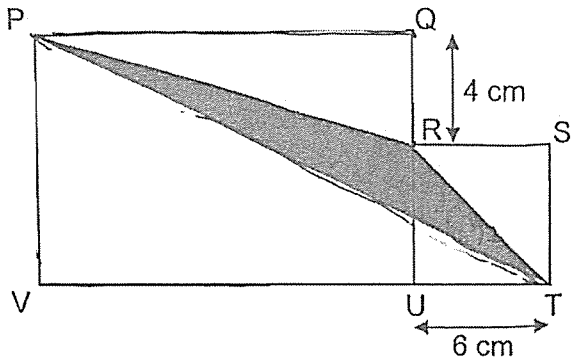
(a) How many mangoes were there?

Ans: (a) _____ [3]

(b) How many fruits were there in the crate?

Ans: (b) _____ [1]

11 The figure is made up of a rectangle PQUV, a square RSTU and a triangle PRT. QRU and VUT are straight lines. UT = 6 cm and QR = 4 cm. The perimeter of rectangle PQUV is 46 cm.



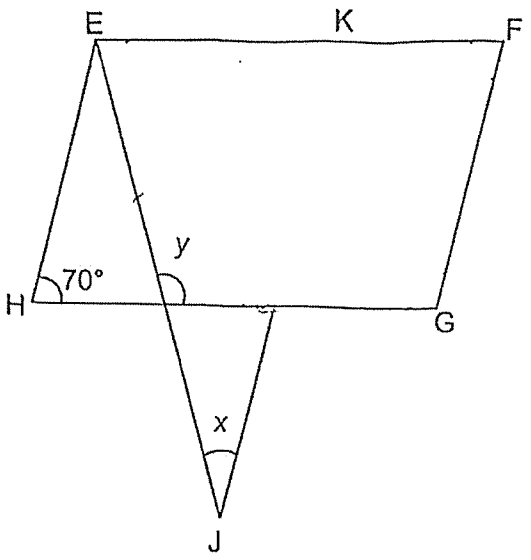

(a) Find the length of PQ.

Ans: (a) _____ cm [1]

(b) Find the area of triangle PRT.

Ans: (b) _____ $cm^2$ [3]

12 In the figure below, EFGH is a parallelogram and EJK is an isosceles triangle. FG is parallel to KJ. $\angle EHG = 70°$ and JE = JK.




(a) Find $\angle x$.

Ans: (a) _____° [2]

(b) Find $\angle y$.

Ans: (b) _____° [2]

13 Peter has some 20-cent coins and 50-cent coins. The number of 20-cent coins is four times as many as the number of 50-cent coins. The value of the 20-cent coins is $11.40 more than the value of the 50-cent coins.

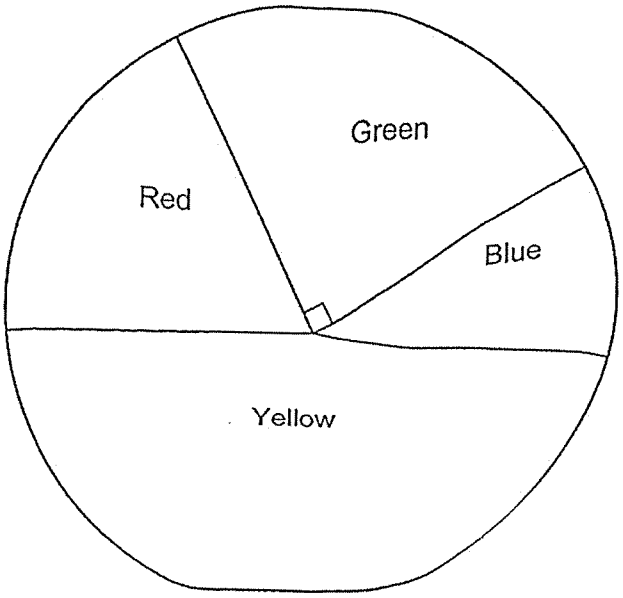
(a) How many fewer 50-cent coins than 20-cent coins does Peter have?

Ans: (a) _____ [3]

(b) How much money does Peter have?

Ans: (b) $_____ [2]

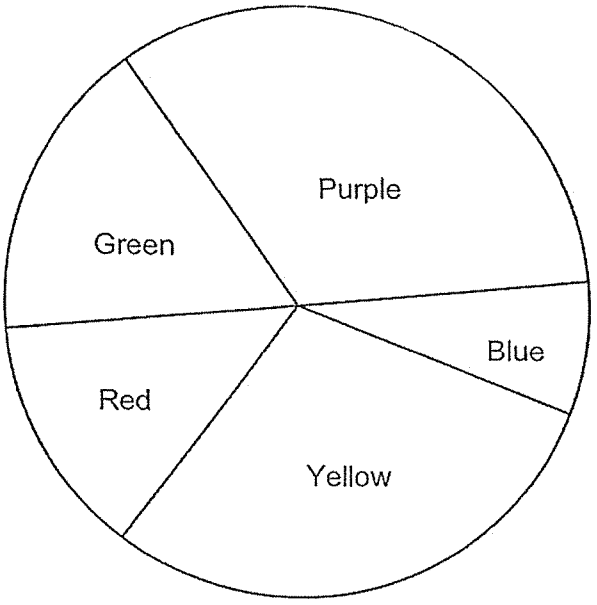
14 The pie chart below shows the different coloured beads Rahim has. $\frac{1}{5}$ of the beads Rahim has are red. The number of yellow beads is 4 times as many as the number of blue beads.




(a) What percentage of the beads are blue?

Ans: (a) _____% [3]

(b) Rahim has a total of 600 beads after he is given some purple beads. $\frac{1}{3}$ of the beads Rahim has now are purple. The pie chart below shows the different coloured beads Rahim has after he is given some purple beads.




How many green beads are there?

Ans: (b) _____ [2]

**15** The figures below are formed by squares of the same size.

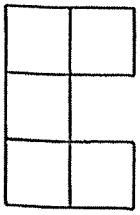


Figure 1

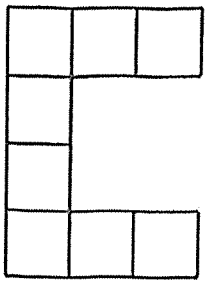


Figure 2

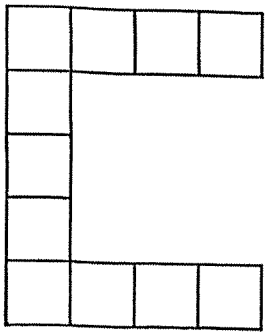


Figure 3

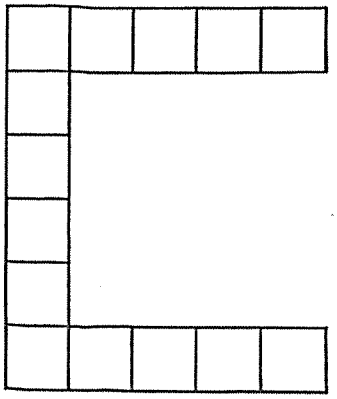


Figure 4

(a) Complete the table below for Figure 5.

| Figure | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| No. of Squares | 5 | 8 | 11 | 14 | |

[1]

(b) How many squares are there in Figure 29?

Ans: (b) _____ [2]

(c) Which figure will have 311 squares?

Ans: (c) _____ [2]

End of Paper

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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 (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. (26 marks)

1 In 96.452, which digit is in the tenths place?

96.452

(1) 5
(2) 2
(3) 4 ✓
(4) 9

(4)

2 Which of the following is the same as 30 400 m?

30 400 ÷ 1000
= 30.4

(1) 3.04 km
(2) 30.04 km
(3) 30.4 km ✓
(4) 304 km

(3)



3 A photocopier prints 40 pages per minute. At the same rate, how many minutes will it take to print 240 pages?

240 pages
= 240 ÷ 10 ÷ 4
= 24 ÷ 4
= 6

(1) 12
(2) 8
(3) 6 ✓
(4) 4

(3)

4 Priya baked 72 chocolate buns, 80 custard buns and 48 kaya buns. What percentage of the buns Priya baked were kaya buns?

(1) 24% ✓
(2) 36%
(3) 40%
(4) 48%

Total → 72 + 80 + 48
= 152 + 48
= 200

$\frac{48}{200} = \frac{24}{100} = 24\%$

(1)

5 There were 750 people at a concert. 30% of them were adults and the rest were children. How many adults were at the concert?

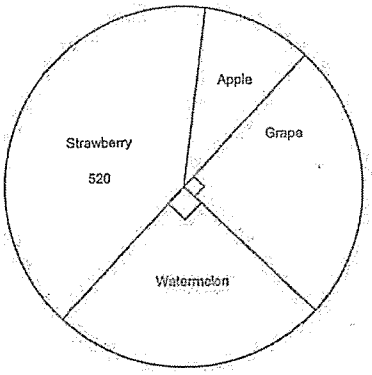
(1) 70
(2) 225 ✓
(3) 300
(4) 525

× 75 (30)
= 3 × 75
= 225

(2)



6 The pie chart below shows the number of fruits sold by Mr Tan. The number of strawberries sold was 4 times as many as the number of apples sold.




How many watermelons were sold?

Apples → 520 ÷ 4
= 130

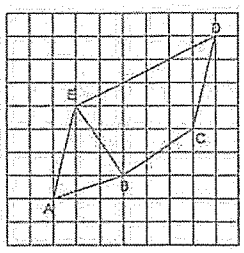
(1) 130
(2) 260
(3) 325 ✓
(4) 650

Strawberry + Apple 2 = Watermelon + Grape
520 + 130 = 650

(3)



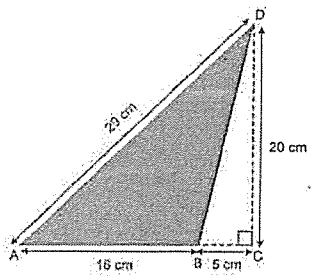
7 Which pair of lines are parallel?




(1) BC and ED
(2) AE and CD ✓
(3) EB and ED
(4) EB and BC

(2)

8 Find the area of shaded triangle ABD.




(1) 160 cm² ✓

(2) 210 cm²

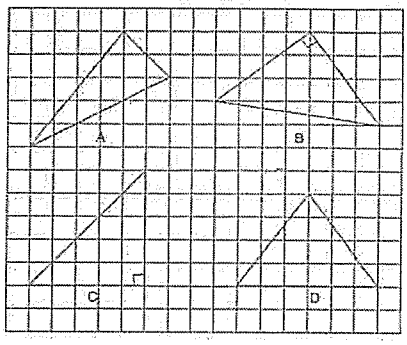
(3) 232 cm²

(4) 320 cm²

Base → AB = 16cm
Height → CD = 20cm
Area → $\frac{1}{2} \times 16\text{cm} \times 20\text{cm}$
$= 160\text{cm}^2$ (1)



9 Which of the following are right-angled triangles?




(1) A and B

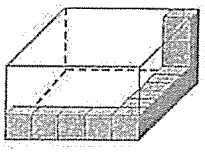
(2) A and C

(3) B and C ✓ (3)

(4) B and D



10 A rectangular tank is partially filled with 1-cm cubes as shown below. How many more such cubes are needed to fill the tank completely?



(1) 13

(2) 90

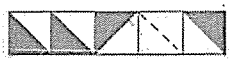
(3) 92 ✓

(4) 105

Total cubes to fill tank $= 5 \times 7 \times 3$
$= 35 \times 3$
$= 105$
Current number of cubes $= 13$ (3)
$105 - 13 = 92$



11 The figure is made up of 5 squares. Some squares are divided equally into 2 triangles. What fraction of the figure is shaded?



(1) $\frac{2}{5}$ ✓ $\frac{4}{10} = \frac{2}{5}$

(2) $\frac{1}{2}$ (1)

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

(4) $\frac{4}{9}$

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

③ ① ②
$\frac{3}{4}$ , $\frac{1}{2}$ , $\frac{5}{8}$
$\frac{6}{8}$ $\frac{4}{8}$

| | Smallest | | | | Largest |
|---|---|---|---|---|---|
| (1) | $\frac{1}{2}$ | , | $\frac{3}{4}$ | , | $\frac{5}{8}$ |
| (2) | $\frac{5}{8}$ | , | $\frac{3}{4}$ | , | $\frac{1}{2}$ |
| (3) | $\frac{3}{4}$ | , | $\frac{5}{8}$ | , | $\frac{1}{2}$ |
| (4) | $\frac{1}{2}$ | , | $\frac{5}{8}$ | , | $\frac{3}{4}$ ✓ |

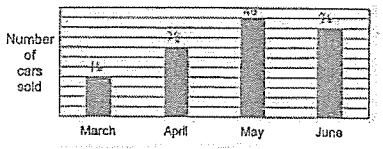
(4)

13 The table below shows the number of cars sold by a car shop from March to June.

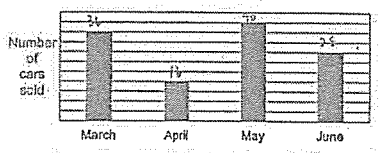
| Month | Number of cars sold |
|---|---|
| March | 28 |
| April | 16 (lowest) |
| May | 40 (highest) |
| June | 36 |

Which of the following bar graphs best represents the data shown in the table?

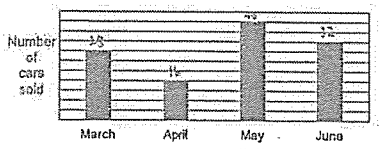
(1)



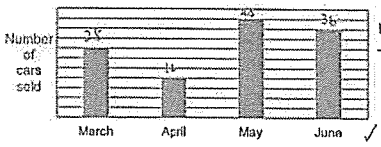

(2)




(3)




(4)

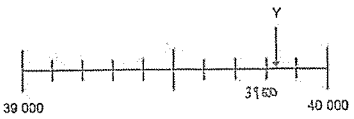



1 interval → 4 cars

(4)

11

14 The figure below shows a number line. Which of the following is closest to the value of Y?




(1) 39 080

(2) 39 090

(3) 39 800 ✓ (3)

(4) 39 900

15 The cost of a laptop was $4098. A washing machine cost $1258 more than the laptop. Find the total cost of 70 such washing machines.

(1) $288 360

(2) $286 860

(3) $322 860

(4) $374 920 ✓

$4098 + $1258 = $5356

$5356 × 70 = $5356 × 7 × 10

= $37492 × 10

= $374 920

(4)

12

16 Mary had 52.8 ℓ of orange juice. She poured all the orange juice equally into 600 small cups. How many litres of orange juice did each small cup contain?

(1) 0.088 ✓

(2) 0.88

(3) 8.8

(4) 88

52·8 ÷ 600 = 52·8 ÷ 6 ÷ 100

= 8·8 ÷ 100

= 0.088

(1)

17 Jane and Ali cooked the same amount of soup to sell. When Jane packed her soup in packets of 2.5 ℓ, she had 1.5 ℓ of soup left unpacked. When Ali packed all his soup in packets of 1.5 ℓ, he had no soup remaining and had 5 more packets of soup than Jane. How much soup did Jane have at first?

(1) 9 ℓ

(2) 16.5 ℓ ✓

(3) 21.5 ℓ

(4) 29 ℓ

| | | | | | | |
|---|---|---|---|---|---|---|
| Jane → | 2.5 | 5.0 | 7.5 | 10.0 | 12.5 | 15 |
| | 4.0 | 6.5 | 9.0 | 11.5 | 14 | 16.5 |
| Ali → | 1.5×6 = 9.0 | 1.5×7 = 10.5 | 1.5×8 = 12 | 1.5×9 = 13.5 | 1.5×10 = 15 | 1.5×11 = 16.5 |

(2)

13

18 The table below shows the number of books read by students in a school. $\frac{5}{12}$ of the students read at least 4 books. Part of the table is smeared with ink.

| Number of books read | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Number of students | 66 | 74 | 20 | | |

Which statement(s) is/are not possible to tell?

A The total number of students is 240. True

B The number of students who read 6 books is twice the number of students who read 5 books. False

C Most students read 3 books. NPTT

(1) B only

(2) C only ✓

(3) B and C only

(4) A, B and C

(A) $\frac{1}{12}$ of students → 66 + 74 = 140

$\frac{1}{12}$ of students → 140 ÷ 7 = 20

Total students → 20 × 12 = 240

So A is True.

(B) $\frac{5}{12}$ of students → 20 × 5 = 100

Number of students who read 5 or 6 books → 100 − 20 = 80

80 is not divisible by 5 (if the number of students who read 6 books is twice the number of students who read 5 books)

So B is False

students who read: 6 books, 5 books

The number should be divisible by 3.

(C) Since the number of students who read 5 or 6 books is 80, and neither the number of students who read 5 books nor the number of students who read 6 books is known, it is possible that more than 74 students read either 5 or 6 books.

So C is Not possible to Tell.

(1)

14

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)

19 (a) Find the value of $100 \div (24 - 14) + 8 \times 10$.

$100 \div (24 - 14) + 8 \times 10$

$= 100 \div 10 + 8 \times 10$

$= 10 + 8 \times 10$

$= 10 + 80$

$= 90$

Ans: (a) 90

(b) Round 32 409 to the nearest hundred.

Ten-Th Th H T O

32 409 ≈ 32 400

Ans: (b) 32 400

3

21 (a) Find the value of $\frac{7}{6} \times 5$. Express your answer as a mixed number.

$\frac{7}{6} \times \frac{5}{1} = \frac{7 \times 5}{6 \times 1} = \frac{35}{6} = 5\frac{5}{6}$

Ans: (a) $5\frac{5}{6}$

(b) Find the value of $\frac{6}{7} \times \frac{14}{9}$. Express your answer as a mixed number in its simplest form.

$\frac{6^{2}}{7_{1}} \times \frac{14^{2}}{9_{3}} = \frac{2 \times 2}{1 \times 3} = \frac{4}{3} = 1\frac{1}{3}$

Ans: (b) $1\frac{1}{3}$

5

20 (a) Express $\frac{9}{4}$ as a decimal.

$\frac{9}{4} = 2\frac{1}{4} = 2.25$

Ans: (a) 2.25

(b) Find the value of $3 \div 8$. Express your answer as a decimal correct to 2 decimal places.

↳ working up to 3 dp

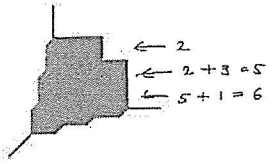
$$\begin{array}{r} 0.375 \\ 8\overline{)3.000} \\ -0\downarrow\phantom{00} \\ \hline 30\phantom{0} \\ -24\phantom{0} \\ \hline 60 \\ -56 \\ \hline 40 \\ -40 \\ \hline 0 \end{array}$$

$0.375 \approx 0.38$

Ans: (b) 0.38

4

22 The solid below is made up of 1-cm cubes.

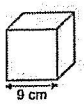



(a) How many 1-cm cubes are there in the solid?

Total → 5 + 6 + 2 = 13

Ans: (a) 13

(b) What is the volume of the cube shown below?

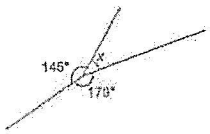



Volume → 9 × 9 × 9 = 729

Ans: (b) 729 cm³

6

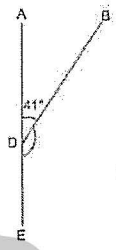
23 (a) Find $\angle x$.




$360° - 145° - 179° = 26°$

Ans: (a) 36 °

(b) ADE is a straight line. Find $\angle BDE$.

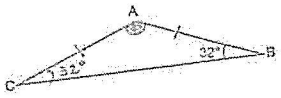



$180° - 41° = 139°$

Ans: (b) 139 °

7

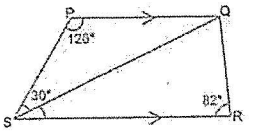
24 (a) ABC is a triangle and AB = AC. Find $\angle CAB$.




$180° - 32° - 32° = 116°$

Ans: (a) 116 °

(b) PQRS is a trapezium. PQ // SR, $\angle QRS = 82°$, $\angle QPS = 126°$ and $\angle PSQ = 30°$. Find $\angle QSR$.

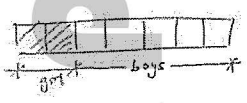



$180° - 126° - 30° = 24°$

Ans: (b) 24 °

8

25 In a camp, $\frac{2}{7}$ of the children were girls and the rest were boys. There were 120 more boys than girls. How many boys were there?




3u → 120

1u → 120 ÷ 3 = 40

5u → 40 × 5 = 200

Ans: 200

26 Aileen saved \$3.20 every day from 1st June 2025. A few days later, Bernard started to save. He saved an equal amount of money each day. At the end of 7th June 2025, Bernard saved \$14.40. At the end of 9th June 2025, Aileen's total savings and Bernard's total savings were the same. How much did Bernard save each day?

(Aileen) 9 days → \$3.20 × 9 = \$28.80

Bernard saving in 2 days → \$28.80 − \$14.40
\$14.40

Bernard saving in 1 day → \$14.40 ÷ 2 = \$7.20

Ans: \$ 7.20

9

27 The table below shows the parking charges at a car park.

| Parking Charges | |
|---|---|
| For the first hour | \$1.90 |
| For every additional $\frac{1}{2}$ hour or part thereof | \$1.10 |

Mrs Sim parked her car at the car park for 3 h 40 min. How much did she pay in total for the parking charges?

1st 1 h → \$1.90

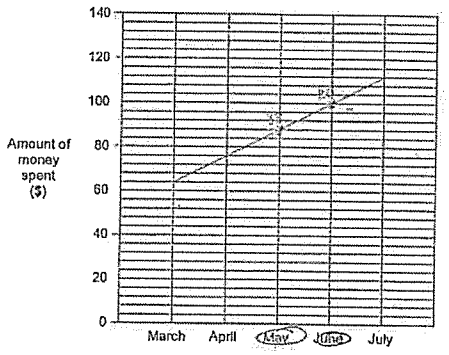
Subsequent 2h 40min → 6 × \$1.10 = \$6.60

Total → \$6.60 + \$1.90 = \$8.50

Ans: \$ 8.50

10

28 Jia Hao was given $120 each month. He spent some money and saved the remaining amount of money each month. The line graph below shows the amount of money he spent from March to July.




Find the total amount of money Jia Hao saved in May and June.

Each gap → 40 ÷ 10 = 4

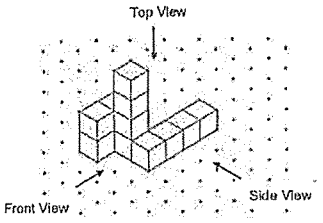
total (May and June) spent → 100 + 88 = 188

Saved → (120 × 2) − 188
= 240 − 188
= 52

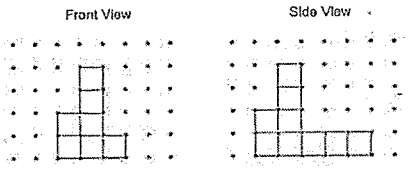
Ans: $ 52



29 Ahmad stacked 12 unit cubes and glued them together to form the solid below.

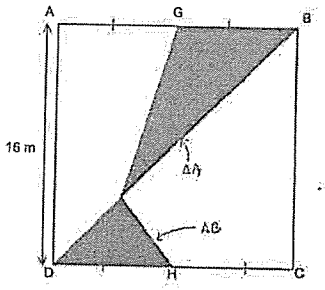



Draw the front view and the side view of the solid on the grids below.






30 ABCD is a square and AG = GB = DH = HC. AGB and DHC are straight lines. Find the total area of the shaded triangles.




GB = DH = base of triangles → 16 ÷ 2 = 8

Height of ΔA and ΔB → 16

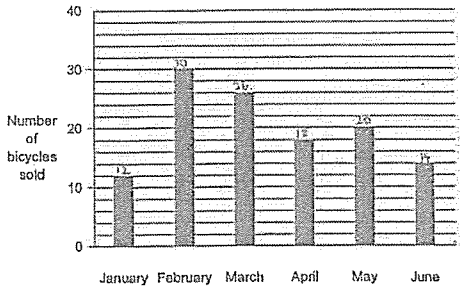
Area of ΔA and ΔB → $\frac{1}{2} \times 16 \times 8 = 64$

Ans: 64 m²

End of 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 The bar graph below shows the number of bicycles sold at a shop from January to June.




How many bicycles were sold from January to May?

$12+30+26+18+20=106$ (ans)

Ans: 106



2 The length of Rope A is $5\frac{3}{4}$ m. Rope B is $1\frac{3}{5}$ m shorter than Rope A. What is the length of Rope B? Express your answer as a mixed number.

$5\frac{3}{4}\text{m} - 1\frac{3}{5}\text{m} = 4\frac{3}{20}\text{m}$ (ans)

Ans: $4\frac{3}{20}$ m

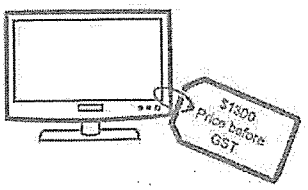
3 John bought 7 packets of potatoes. The mass of each packet of potatoes was $1\frac{3}{8}$ kg. Find the total mass of the 7 packets of potatoes that John bought. Express your answer as a mixed number.

$7 \times 1\frac{3}{8}\text{kg} = 9\frac{5}{8}\text{kg}$ (ans)

Ans: $9\frac{5}{8}$ kg



4 Wee Kiat bought a television set.




How much did Wee Kiat pay for the television set, including 9% GST?

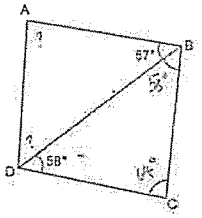
GST paid $\rightarrow \frac{9}{100} \times \$1300 = \$117$

$\$1300 + \$117 = \$1417$ (ans)

Ans: $ 1417



5 ABCD is a quadrilateral. BCD is an isosceles triangle. BC = CD, $\angle BDC = 58°$ and $\angle ABD = 57°$.




The figure above is not drawn to scale. Each statement is either true, false, or not possible to tell from the information given. Put a tick (✓) to indicate your answer.

BC = CD
So $\angle BDC = \angle DBC = 58°$

| Statement | True | False | Not possible to tell |
|---|---|---|---|
| $\angle BCD = 58°$. | | ✓ | |
| $\angle BAD = 64°$. | | | ✓ |
| ABCD is a rhombus. | | ✓ | |

$\angle BCD = 180° - 58° - 58° = 64°$ (False, not 58°)

$\angle BDA$ cannot be found based on the information given, so neither can $\angle BAD$ be calculated. (NPTT)

If ABCD is a rhombus,
$\angle ABC + \angle BCD = 180°$ (angles between a pair of parallel lines)
$(57° + 58°) + 64° = 179°$

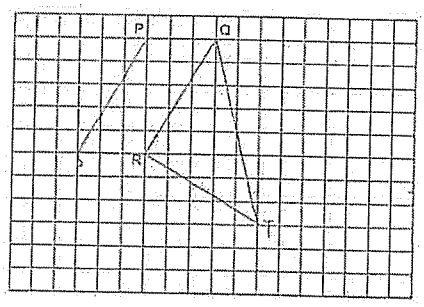
So, AB is not parallel to DC, and ABCD cannot be a rhombus.
(False)

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 brackets [ ] at the end of each question or part-question. (40 marks)

6 In the square grid, two sides of a parallelogram PQRS have been drawn.

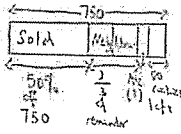
(a) Complete the drawing of the parallelogram PQRS. [1]

(b) QR forms one side of a triangle QRT in which ∠QRT is a right angle and RQ = RT. Complete the drawing of the triangle QRT within the grid. Parallelogram PQRS does not overlap with triangle QRT. [2]






7 Ryan baked 750 cookies. He sold 50% of the cookies and gave $\frac{2}{3}$ of the remaining cookies to his neighbour. He then ate some cookies and had 80 cookies left. What percentage of the cookies baked did Ryan eat?




$\frac{2}{3}$ of remaining cookies (given to neighbour) → $\frac{2}{3} \times 375$ = 250

Sold → $\frac{50}{100} \times 750$ = 375

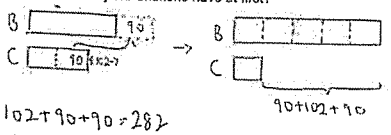
Remaining cookies → 375

Cookies eaten → 375 − 250 − 80 = 45

$\frac{45}{750} \times 100\% = 6\%$ (ans)

Ans: 6 % [3]

8 Charlene had $102 less than Bernice. After Charlene gave Bernice $90, Bernice had 5 times as much as what Charlene had left. How much money did Charlene have at first?




102 + 90 + 90 = 282

4 units → 282

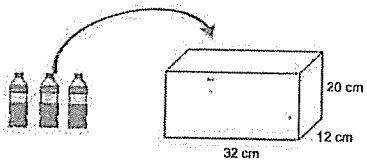
1 unit → 282 ÷ 4 = 70.50

70.50 + 90 = 160.50 (ans)

Ans: $ 160.50 [3]



9 A rectangular tank measuring 32 cm by 12 cm by 20 cm was empty at first. There were 3 identical bottles which were completely filled with water. Mr Kim poured all the water from the 3 bottles into the tank. In the end, the tank was $\frac{1}{5}$ – filled with water.




(a) What was the volume of water in each bottle? Express your answer in litres.

Water in tank (cm³) → $\frac{1}{5} \times 32 \times 12 \times 20 = 1536$

Water in each bottle (cm³) → 1536 ÷ 3 = 512

512 ÷ 1000 = 0.512 (ans)

Ans: (a) 0.512 ℓ [2]

(b) How much more water was needed to fill the tank to the brim?

Capacity of tank (cm³) → 32 × 12 × 20 = 7680

7680 − 1536 = 6144 (ans)

Ans: (b) 6144 cm³ [2]



10 There were some fruits in a crate. $\frac{4}{9}$ of them were strawberries and $\frac{2}{3}$ of the remainder were mangoes. The rest of them were pineapples. There were 105 more strawberries than pineapples.

(a) How many mangoes were there?

$1 - \frac{4}{9} = \frac{5}{9}$

Remainder → $\frac{5}{9}$ of total fruits

$1 - \frac{2}{3} = \frac{1}{3}$ → fraction of remainder that were pineapples

$\frac{1}{3} \times \frac{5}{9} = \frac{5}{27}$ → fraction of total fruits that were pineapples

$\frac{4}{9} - \frac{5}{27} = \frac{7}{27}$

$1 - \frac{4}{9} - \frac{5}{27} = \frac{10}{27}$ → fraction of total fruits that were mangoes

$\frac{7}{27}$ of total fruits → 105

$\frac{1}{27}$ of total fruits → 105 ÷ 7 = 15

Mangoes → $\frac{10}{27}$ of total → 15 × 10 = 150 (ans)

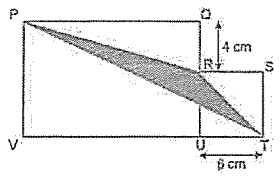
Ans: (a) 150 [3]

(b) How many fruits were there in the crate?

15 × 27 = 405 (ans)

Ans: (b) 405 [1]

11 The figure is made up of a rectangle PQUV, a square RSTU and a triangle PRT. QRU and VUT are straight lines. UT = 6 cm and QR = 4 cm. The perimeter of rectangle PQUV is 46 cm.




(a) Find the length of PQ.

RU = UT = 6cm
QU = 4cm + 6cm
= 10cm

PQ = (46cm − 10cm − 10cm) ÷ 2
= 13cm (ans)

Ans: (a) 13 cm [1]

(b) Find the area of triangle PRT.

VT = 6cm + 13cm
= 19cm

Area of PVT = $\frac{1}{2}$ × 10cm × 19cm
= 95cm²

Area of RST = $\frac{1}{2}$ × 6cm × 6cm
= 18cm²

Area of PQR = $\frac{1}{2}$ × 4cm × 13cm
= 26cm²

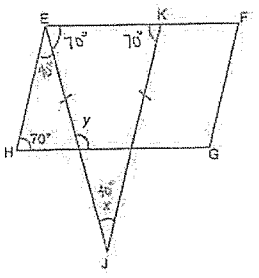
Area of rectangle and square = (13cm × 10cm) + (6cm × 6cm)
= 166cm²

Shaded area = (166 − 26 − 18 − 95) cm²
= 27cm² (ans)

Ans: (b) 27 cm² [3]



12 In the figure below, EFGH is a parallelogram and EJK is an isosceles triangle. FG is parallel to KJ. ∠EHG = 70° and JE = JK.




(a) Find ∠x.

Since FG || KJ, EH must also be parallel to KJ (as EH || FG)

∠EKJ = ∠JEK
= 70°

∠KEJ = ∠EKJ
= 70°

∠x = 180° − 70° − 70°
= 40° (ans)

Ans: (a) 40 ° [2]

(b) Find ∠y.

∠HEJ = 180° − 70° − 70°
= 40°

∠y = 180° − (180° − 70° − 40°)
= 180° − 70°
= 110° (ans)

Ans: (b) 110 ° [2]



13 Peter has some 20-cent coins and 50-cent coins. The number of 20-cent coins is four times as many as the number of 50-cent coins. The value of the 20-cent coins is $11.40 more than the value of the 50-cent coins.

(a) How many fewer 50-cent coins than 20-cent coins does Peter have?

$0.20 × 4 = $0.80

$0.80 − $0.50 = $0.30 ⇒ small difference

$11.40 → big difference

$11.40 ÷ $0.30 = 38 → No. of groups (1 group has 4 20¢ coins and 1 50¢ coin)

Number of 20¢ coins → 38 × 4
= 152

152 − 38 = 114 (ans)

Ans: (a) 114 [3]

(b) How much money does Peter have?

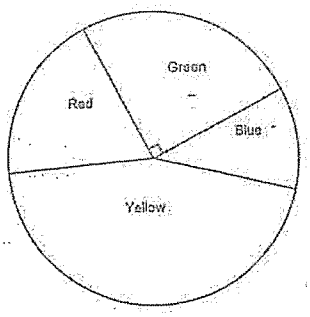
$0.80 + $0.50 = $1.30

38 × $1.30 = $49.40 (ans)

Ans: (b) $ 49.40 [2]



14 The pie chart below shows the different coloured beads Rahim has. $\frac{1}{5}$ of the beads Rahim has are red. The number of yellow beads is 4 times as many as the number of blue beads.




(a) What percentage of the beads are blue?

Green → 25%

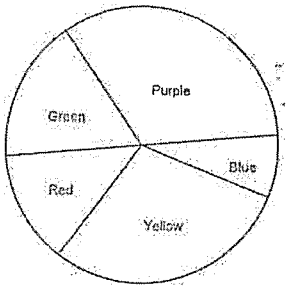
Red → $\frac{1}{5} = \frac{20}{100}$ = 20%

Blue + Yellow → 100% − 20% − 25%
= 55%

Blue → 55% ÷ 5
= 11% (ans)

Ans: (a) 11 % [3]

(b) Rahim has a total of 600 beads after he is given some purple beads. $\frac{1}{3}$ of the beads Rahim has now are purple. The pie chart below shows the different coloured beads Rahim has after he is given some purple beads.




How many green beads are there?

$1 - \frac{1}{3} = \frac{2}{3}$

$\frac{2}{3} \times 600 = 400$ → Number of beads Raju had at first

$\frac{25}{100} \times 400 = 100$ (ans)

Ans: (b) 100 [2]



15 The figures below are formed by squares of the same size.

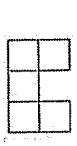


Figure 1

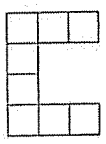


Figure 2

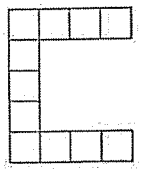


Figure 3

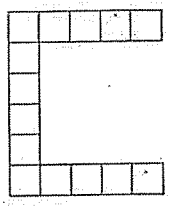


Figure 4

(a) Complete the table below for Figure 5.

| Figure | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| No. of Squares | 5 | 8 | 11 | 14 | 17 |

+3 +3 +3 +3

[1]



(b) How many squares are there in Figure 29?

Total number of figures → (figure number X3) + 2

5 (Figure 1) → (1 X 3) + 2

= 5

(29 X 3) + 2 = 89 (ans)

Ans: (b) 89 [2]

(c) Which figure will have 311 squares?

311 − 2 = 309

309 ÷ 3 = 103 (ans)

Ans: (c) 103 [2]

End of Paper