

METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



END-OF-YEAR EXAMINATION 2022 PRIMARY 5 MATHEMATICS

PAPER 1 BOOKLET A

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS)
provided.

The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 5. _____

Date: 2 November 2022

This booklet consists of 7 printed pages including this page.

2

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). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1 In 6 475 123, which digit is in the hundred thousands place?

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

2 $54 - 36 \div 3 \times 4 =$ _____

- (1) 6
- (2) 24
- (3) 51
- (4) 168

3 $10.060 \text{ km} =$ _____ m

- (1) 106
- (2) 1006
- (3) 10 006
- (4) 10 060

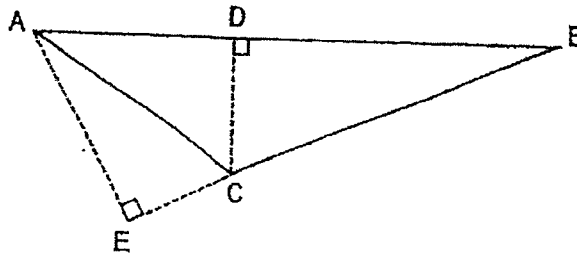
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3

4 Round 199 654 to the nearest 1000.

- (1) 190 000
- (2) 198 000
- (3) 199 000
- (4) 200 000

5 BC is the base of Triangle ABC. Which of the following is the corresponding height of Triangle ABC?



- (1) AC
- (2) AE
- (3) DC
- (4) AB

6 Find the value of $\frac{6}{5} \times \frac{1}{3}$.

- (1) $\frac{2}{5}$
- (2) $\frac{3}{4}$
- (3) $\frac{7}{8}$
- (4) $\frac{23}{15}$

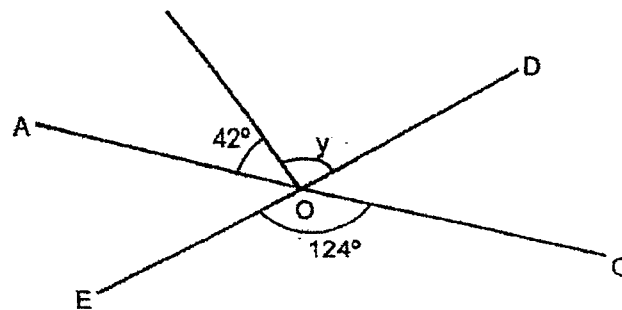
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4

7 Which one of the following is closest to 1?

- (1) $\frac{6}{7}$
- (2) $\frac{7}{6}$
- (3) $\frac{8}{9}$
- (4) $\frac{9}{8}$

8 AOC and EOD are straight lines. Find $\angle y$.



- (1) 96°
- (2) 82°
- (3) 69°
- (4) 56°

9 Express 0.053 as a percentage.

- (1) 0.053%
- (2) 0.53%
- (3) 5.3%
- (4) 53%

(Go on to the next page)

- 10 Mrs Muthu bought $\frac{3}{4}$ kg of coconut milk. She used $\frac{2}{5}$ of the coconut milk.

How much coconut milk did she have left?

- (1) $\frac{9}{20}$ kg
- (2) $\frac{7}{20}$ kg
- (3) $\frac{7}{10}$ kg
- (4) $\frac{3}{10}$ kg

- 11 The ratio of the number of necklaces to the number of bracelets is 7 : 2.

There are 126 necklaces and bracelets altogether. How many more necklaces than bracelets are there?

- (1) 98
- (2) 70
- (3) 18
- (4) 14

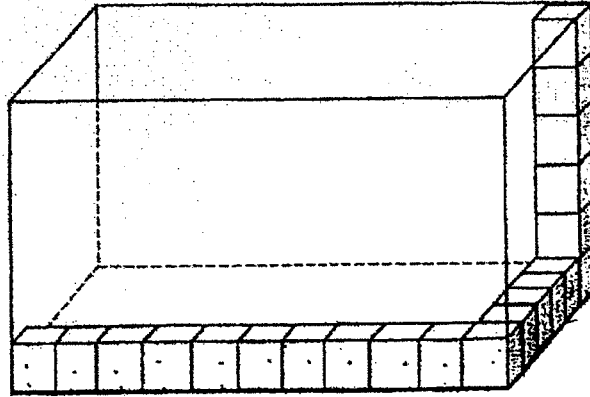
- 12 There are 560 performers at the stadium. $\frac{1}{4}$ of them are children. $\frac{1}{5}$ of the adults are women and the rest are men. How many men are there at the stadium?

- (1) 448
- (2) 336
- (3) 308
- (4) 252

(Go on to the next page)

6

- 13 A rectangular glass container is partially filled with 1-cm cubes as shown.
What is the capacity of the glass container?

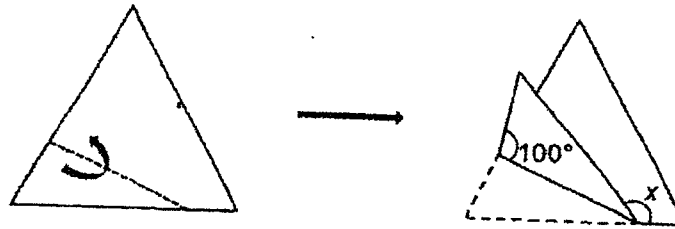


- (1) 275 cm³
(2) 300 cm³
(3) 330 cm³
(4) 396 cm³
- 14 Printer A prints at a rate of 50 pages per minute. Printer B prints at a rate of 40 pages per minute. How long will it take both printers to print a total of 1800 pages?
- (1) 12 min
(2) 20 min
(3) 81 min
(4) 180 min

(Go on to the next page)

7

- 15 A piece of paper in the shape of an equilateral triangle is folded along the dotted line as shown. Find $\angle x$.



- (1) 20°
- (2) 40°
- (3) 140°
- (4) 160°

(Go on to Booklet B)

METHODIST GIRLS' SCHOOL (PRIMARY)

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END-OF-YEAR EXAMINATION 2022 PRIMARY 5 MATHEMATICS

PAPER 1 BOOKLET B

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 5. _____

Date: 2 November 2022

Parent's Signature: _____

Paper 1 Booklet A	/ 20
Paper 1 Booklet B	/ 25
Paper 2	/ 55
TOTAL	/ 100

This booklet consists of 9 printed pages including this page.

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

Do not write
in this space

16 $243 \times 3000 =$ _____

Ans: _____

17 Find the value of $(33 + 4 \times 25) - (100 - 30 \div 6)$.

Ans: _____

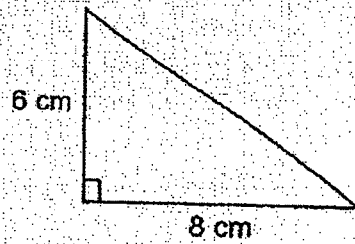
18 Mary poured 7160 ml of orange juice equally into 40 glasses.
How much juice was there in each glass?

Ans: _____ ml

(Go on to the next page)

3

- 19 Find the area of the triangle.



Do not write
in this space

Ans: _____ cm²



- 20 What is the missing value in the ratio below?

: 8 = 28 : 56

Ans: _____



(Go on to the next page)

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)

Do not write
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- 21 The table shows the time taken for Jane to swim 50 m recorded on different days. Study the table and answer the following questions.

Day 1	22.5 s
Day 2	21.8 s
Day 3	24.5 s
Day 4	23.2 s

- (a) On which day did Jane clock the fastest time?

Ans: (a) Day _____

- (b) What was the average time taken for Jane to swim 50 m over the 4 days?

Ans: (b) _____ s

(Go on to the next page)

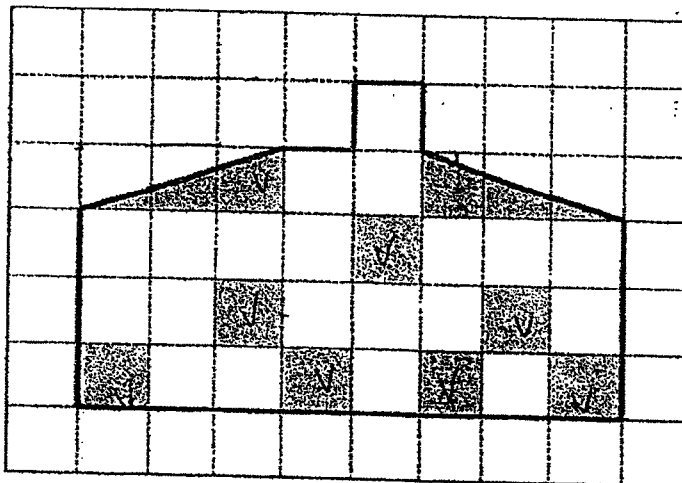
5

- 22 In Jenny's class, $\frac{1}{3}$ of the pupils come to school by car, 20% of the pupils take the school bus and $\frac{1}{6}$ of the pupils walk to school. The rest of the class takes the MRT to school. What percentage of Jenny's class takes the MRT to school?

Do not write
in this space

Ans: _____ %

- 23 Andy drew a figure in the square grid and shaded some parts. How many more square(s) must be shaded such that $\frac{3}{5}$ of the figure is shaded?



Ans: _____

(Go on to the next page)

6

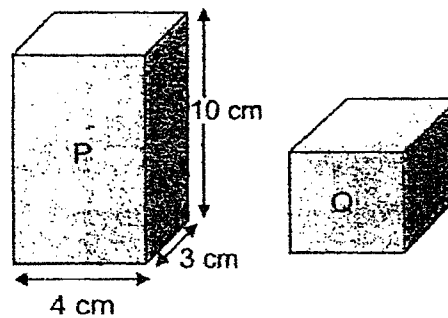
- 24 Sammy has a plank of wood measuring 2.1 m. He saws it into 2 pieces. One piece is 25 cm longer than the other piece. What is the length of the shorter piece of wood? Give your answer in cm.

Do not write
in this space

Ans: _____ cm



- 25 The volume of cuboid P is 2 times the volume of cuboid Q. Find the volume of cuboid Q.



Ans: _____ cm³



(Go on to the next page)

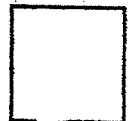
7

- 26 There are some books on a shelf. $\frac{3}{5}$ of the books are fiction while the rest are non-fiction. $\frac{2}{3}$ of the non-fiction books are in Chinese while the rest are in Malay. There are fewer children's fiction books than adult fiction books.

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.

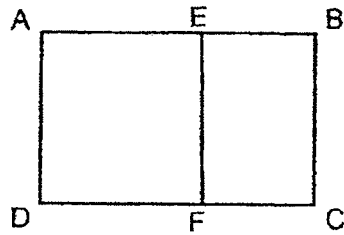
	True	False	Not possible to tell
(a) There are fewer children's fiction books than Malay non-fiction books.			
(b) The greatest number of books on the shelf are adult fiction books.			

Do not write
in this space



(Go on to the next page)

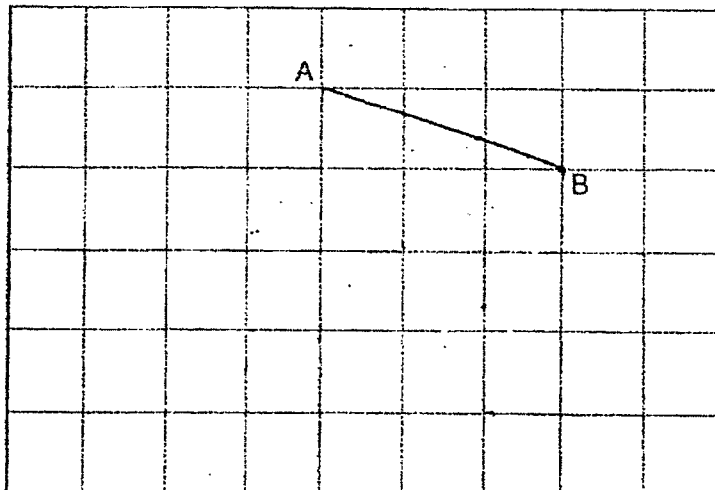
- 27 In the diagram, ABCD is a rectangle and AEFD is a square. The ratio of the AE to EB is 3 : 2. What percentage of rectangle ABCD is shaded?



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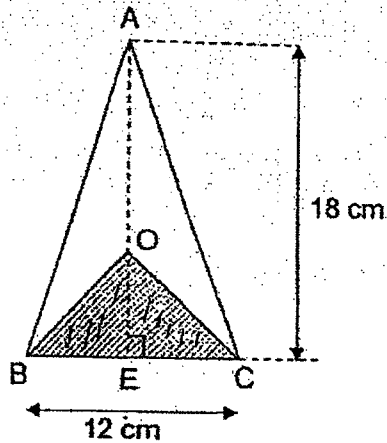
Ans: _____ %

- 28 In the square grid, the line AB has been drawn for you. Draw a right-angled isosceles triangle ABC, where $AB = BC$. Label point C.



(Go on to the next page)

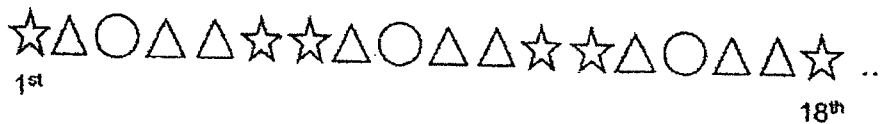
- 29 ABC is an isosceles triangle. AO is twice the length of OE.
AE = 18 cm and BC = 12 cm. Find the area of the unshaded part.



Do not write
in this space

Ans: _____ cm²

- 30 Kumar made a pattern using three different shapes: stars, triangles and circles. The first 18 shapes in the pattern are shown.



There were 46 triangles in the pattern. What was the greatest number of shapes in the pattern?

Ans: _____

End of Paper

METHODIST GIRLS' SCHOOL (PRIMARY)

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END-OF-YEAR EXAMINATION 2022 PRIMARY 5 MATHEMATICS

PAPER 2

Duration: 1 h 30 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

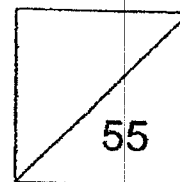
Write your answers in this booklet.

The use of an approved calculator is expected, where appropriate.

Name: _____ ()

Class: Primary 5. _____

Date: 2 November 2022



This booklet consists of 17 printed pages including this 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)

Do not write
in this space

- 1 Meiling bought 3500 g of flour. She gave $\frac{1}{2}$ of it to her sister and used 400 g to bake a cake. How much flour had she left?
Give your answer in kg.

Ans: _____ kg

- 2 For every \$4 that Jimmy saved, his father gave him another \$2.50. How much would Jimmy's father have given him when he had a total of \$157?

Ans: \$ _____

(Go on to the next page)

3

3

The perimeter of a rectangular room is 126 m. The ratio of the length of the room to the breadth of the room is 4 : 3. What is the length of the room?

Do not write
in this space

Ans: _____ m



4

A rectangular tank measuring 30 cm by 20 cm by 25 cm is $\frac{2}{3}$ - filled with water. How many more litres of water is needed to fill the tank to the brim?

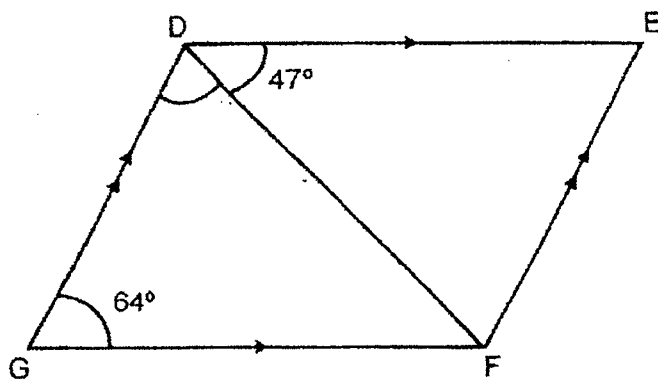
Ans: _____ l



(Go on to the next page)

4

- 5 DEFG is a parallelogram. $\angle EDF = 47^\circ$ and $\angle DGF = 64^\circ$.
Find $\angle GDF$.



Do not write
in this space

Ans: _____ °



(Go on to the next page)

5

For questions to 6 to 17, show your workings 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.

Do not write
in this space

(45 marks)

- 6 There are 150 items in a bag. 48% of the items are pens. The rest of the items are erasers, rulers and 48 pencils. The ratio of the number of erasers to the number of rulers is the same as the ratio of the number of pens to the number of pencils. How many rulers are there in the bag?

Ans: _____ [3]

- 7 Danny had a sum of money. He spent \$315 on a mobile phone and $\frac{3}{5}$ of the remaining money on a headphone. He then had $\frac{1}{10}$ of the sum of money left. How much money did Danny have at first?

Ans: _____ [3]

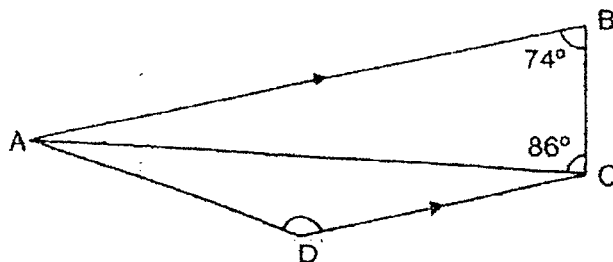
(Go on to the next page)

- 8 On Monday, the number of boys who registered for a contest was three times the number of girls. On Tuesday, another 50 boys registered for the contest while 20 girls withdrew from it. A total of 2454 registrations were confirmed at the end of the two days. How many more boys than girls registered for the contest?

Do not write
in this space

Ans: _____ [3]

- 9 ABCD is a trapezium. ACD is an isosceles triangle where $AD = DC$. $\angle ABC = 74^\circ$ and $\angle ACB = 86^\circ$. Find $\angle ADC$.



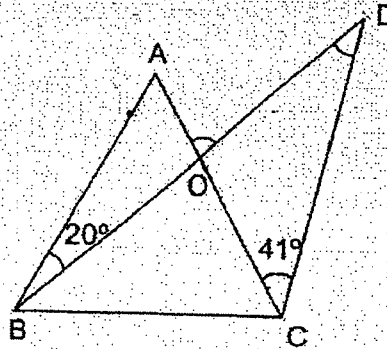
Ans: _____ [3]

(Go on to the next page)

7

- 10 ABC is an equilateral triangle. $\angle ABD = 20^\circ$ and $\angle ACD = 41^\circ$.
BOD is a straight line.

(a) Find $\angle BDC$.



Do not write
in this space

Ans: (a) _____ [2]

(b) Find $\angle AOD$.

Ans: (b) _____ [2]

(Go on to the next page)

11

Figure 1 shows part of the pattern formed when identical rectangular tiles were used to completely cover a rectangular floor measuring 6.75 m by 3.6 m. Figure 2 shows an example of one such tile. How many rectangular tiles were used altogether?

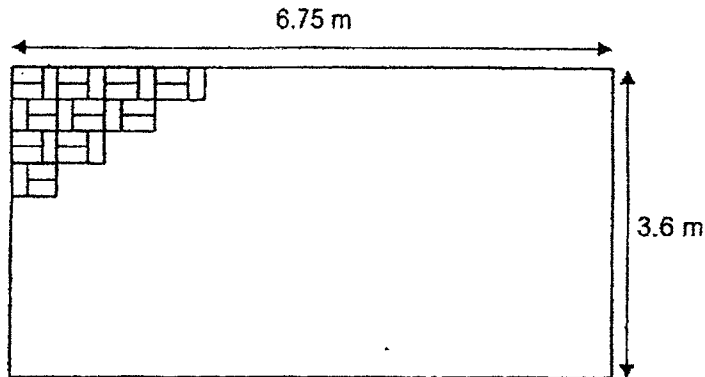


Figure 1

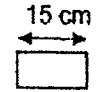
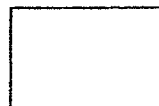


Figure 2

Do not write
in this space

Ans: _____ [3]



(Go on to the next page)

- 12 The table shows the cost of cable car tickets.

Type of Ticket	Weekdays	Weekends & Public Holidays
Adult	\$28	\$32
Child (12 years old and below)	\$20	\$24

Do not write
in this space

- (a) Mr Tan took a cable car ride with his wife and 2 children last Saturday. His children are 10 years old and 14 years old. How much did Mr Tan pay for the tickets altogether?

Ans: (a) _____ [2]

- (b) \$2520 was collected from the sale of 104 tickets on Tuesday. How many child tickets were sold on that Tuesday?

Ans: (b) _____ [3]

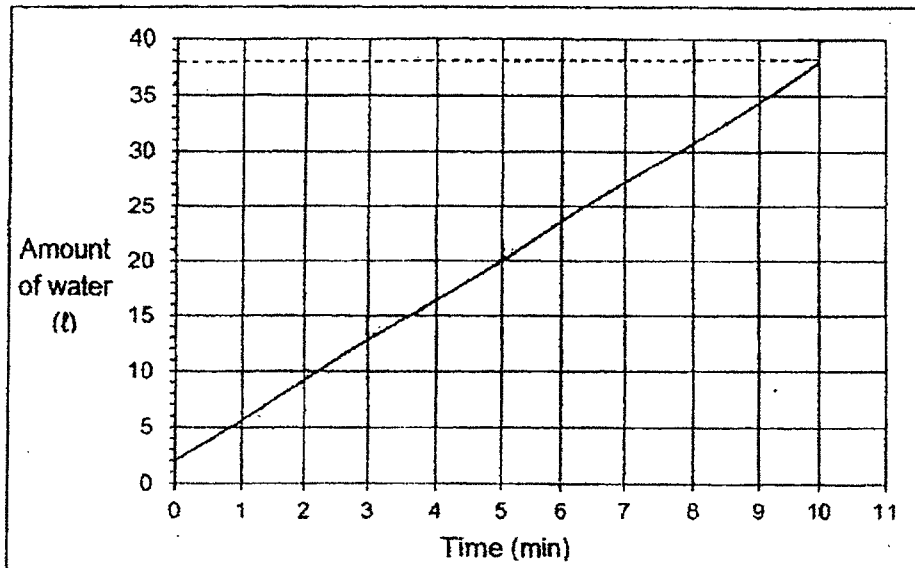
(Go on to the next page)

10

13

The graph shows the rate at which water is flowing into a tank over 10 minutes.

Do not write
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(a) How much water was flowing into the tank per minute ?

Ans: (a) _____ [1]

(b) At the end of 10 minutes, the tank was $\frac{4}{5}$ -filled with water.

Find the capacity of the tank.

Ans: (b) _____ [2]

(Go on to the next page)

- 14 The table shows the marks obtained by Jane and Susan for 4 subjects.

	Jane	Susan
English	78	90
Mathematics	8	78
Science	8	83
Mother Tongue	79	?
Average Mark	80.5	78

Do not write
in this space

- (a) How many marks did Susan get for Mother Tongue?

Ans: (a) _____ [2]

- (b) Part of Jane's marks was covered by an ink blot. What was the highest possible mark that she could have gotten for Mathematics?

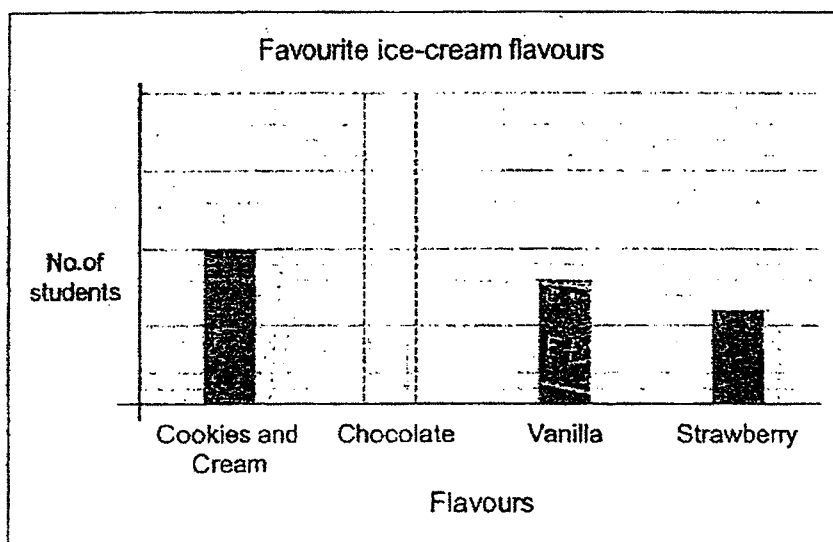
Ans: (b) _____ [2]

(Go on to the next page)

- 15 The table shows the favourite ice-cream flavours of some students.

Ice-cream Flavours	Percentage of students
Cookies and Cream	25%
Chocolate	40%
Vanilla	20%
Strawberry	15%

Do not write
in this space



- (a) Based on the table, draw in the bar to represent the percentage of students who like chocolate. [1]



(Go on to the next page)

13

CHILDREN'S DAY PROMOTION!!!



1 tub: \$12.50
Buy 5 tubs, get 1 tub free!
(Price does not include 7% GST)

Do not write
in this space

- (b) Ms Ong wants to buy 13 tubs of ice-cream for her class. Based on the Children's Day promotion above, what is the least amount of money she needs to pay for the ice-cream including GST?
Round your answer to the nearest dollar.

Ans: (b) _____ [3]



(Go on to the next page)

16

Samuel has a collection of toy vehicles. $\frac{1}{3}$ of them are motorcycles.

$\frac{3}{5}$ of his remaining collection are trucks and the rest are cars.

$\frac{1}{4}$ of the cars are red and the rest are blue.

(a) Samuel has 12 red cars. How many toy trucks does he have?

Ans: (a) _____ [1]

(b) What fraction of Samuel's collection are blue cars?

Ans: (b) _____ [1]

Do not write
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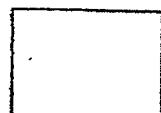
(Go on to the next page)

15

- (c) Samuel's mother gave him some more motorcycles, such that $\frac{5}{8}$ of his collection are now motorcycles. How many motorcycles did Samuel's mother give him?

Do not write
in this space

Ans: (c) _____ [3]

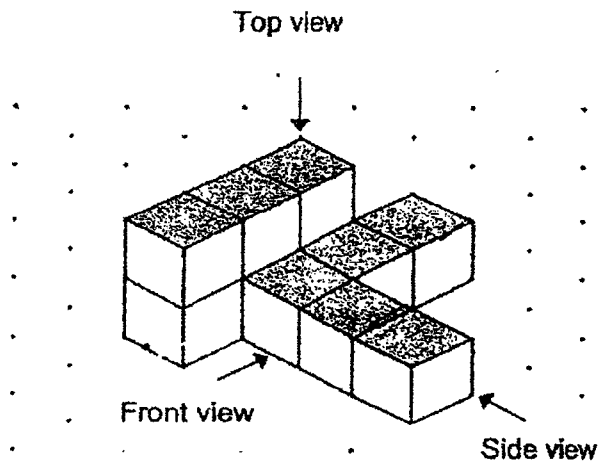


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16

17

The solid shown is made up of 1-cm cubes.

Do not write
in this space

(a) Draw the side view in the square grid.

[1]

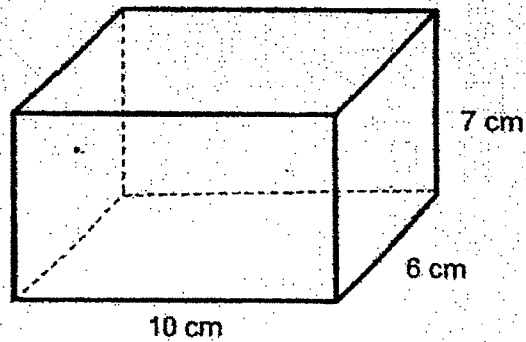
Side View					

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(Go on to the next page)

17

Michael placed the solid into an open rectangular box.



- (b) How many more 1-cm cubes must Michael put into the box to fill it up completely?

Ans: (b) _____ [2]

- (c) How many cubes touch the inside of the box when it is completely filled?

Ans: (c) _____ [2]

END OF PAPER

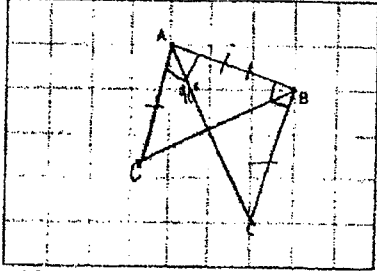
YEAR : 2022
 LEVEL : PRIMARY 5
 SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
 SUBJECT : MATHEMATICS
 TERM. : END OF YEAR EXAMINATION

PAPER 1 (BOOKLET A)

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

(BOOKLET B)

Q16	729 000
Q17	$(33 + 4 \times 25) - (100 - 30 \div 6)$ $= (33 + 100) - (100 - 30 \div 6)$ $= 38$
Q18	$7160 \div 40 = 179\text{ml}$
Q19	$\frac{1}{2} \times 6 \times 8 = 24\text{cm}^2$
Q20	$56 \div 8 = 7$ $28 \div 7 = 4$
Q21	a) Day 2 b) $22.5 + 21.8 + 24.5 + 23.2$ $= 92.0\text{s}$
Q22	$\frac{2}{6} + \frac{1}{6} = \frac{3}{6}$ $= \frac{1}{2}$ Ans : 30%
Q23	$\frac{1}{3} = \frac{5}{15} = \frac{10}{30}$ $\frac{3}{5} = \frac{18}{30}$ $18 - 10 = 8$
Q24	$210 - 25 = 185$ $185 \div 2 = 92.5\text{cm}$
Q25	$4 \times 3 \times 10 = 120$ $120 \div 2 = 60\text{cm}^3$
Q26	a) Not possible to tell ✓ b) True ✓
Q27	$\frac{2}{5} \times 100\% = 40\%$

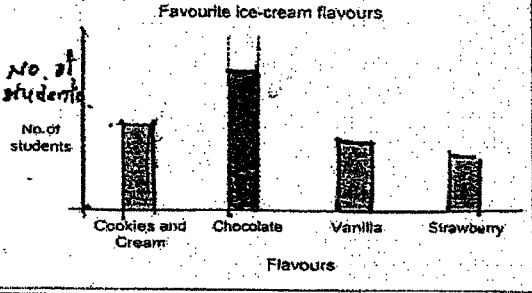
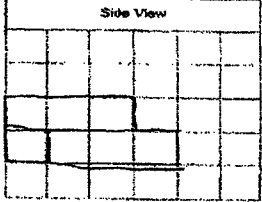
Q28	
Q29	$\frac{1}{2} \times 12 \times 18 = 108$ $\frac{1}{2} \times 12 \times 6 = 36$ $108 - 36 = 72\text{cm}^2$
Q30	$46 \div 3 = 15\text{R}1$ $6 \times 15 = 90$ $90 + 3 = 93$

YEAR : 2022
 LEVEL : PRIMARY 5
 SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)
 SUBJECT : MATHEMATICS
 TERM : END OF YEAR EXAMINATION

PAPER 2

Q1	$\frac{1}{2} \times 3500 = 1750$ $1750 - 400 = 1350$ 1.35kg
Q2	$4 + \$2.50 = \6.50 $\$157 \div \$6.50 = 24\frac{2}{13}$ $24 \times \$6.50 = \156 $\$157 - \$156 = \$1$ $24 \times 2.50 = \$60$
Q3	$14u : 126$ $1u : 9$ $4u : 36m$
Q4	$\frac{2}{3} \times 30 \times 20 \times 25 = 10\,000$ $30 \times 20 \times 25 = 15\,000$ $15\,000 - 10\,000 = 5000$ 5 litre
Q5	$64 + 47 = 111$ $180 - 111 = 69^\circ$
Q6	Pens : Pencils $72 : 48$ $3 : 2$ $E : R$ $3 : 2$ $\text{Pens} : 48\% \times 150 = 72$ $150 - 72 - 48 = 30$ $E + R = 30$ $5u : 30$ $1u : 76$ $2u : 12$
Q7	$\frac{1}{10} : 2u$ $1u : \frac{1}{20}$ $R : \frac{1}{4} \text{ of original}$ $\frac{3}{4} : 315$ $\frac{4}{4} : \$420$

Q8	$2454 - 50 = 2404$ $2404 + 20 = 2424$ $2424 \div 4 = 606$ $1818 + 50 = 1868$ $606 - 20 = 586$ $1868 - 586 = 1282$	
Q9	$74 + 86 = 160$ $180 - 160 = 20$ $180 - 20 - 20 = 140^\circ$	
Q10	a)	$60 - 20 = 40$ $20 + 60 = 80$ $180 - 80 = 100$ $41 + 60 = 101$ $101 + 40 = 141$ $180 - 141 = 39^\circ$
	b)	80°
Q11	$15 \div 2 = 7.5$ $15 \times 7.5 = 112.5$ $6.75\text{m} : 675\text{cm}$ $3.6\text{m} : 360\text{cm}$ $675 \times 360 = 243\,000$ $243\,000 \div 112.5 = 2160\text{cm}^2$	
Q12	a)	$32 \times 3 = 96$ $96 + 24 = \$120$
	b)	Suppose all are adult Total : $28 \times 104 = 2912$ Extra : $2912 - 2520 = 392$ Diff : $28 - 20 = 8$ Opposite : $392 \div 8 = 49$
Q13	a)	$38 - 2 = 36$ $36 \div 10 = 3.6\text{e}$
	b)	$\frac{4}{5} : 38$ $\frac{1}{5} : 9.5$ $\frac{5}{5} : 9.5 \times 5 = 47.5\text{e}$
Q14	a)	$78 \times 4 = 312$ $312 - 90 - 83 - 78$ $= 61$
	b)	$80.5 \times 4 = 322$ $322 - 78 - 79 = 165$ Sci : lowest possible $165 - 80 = 85$

Q15	a)  b) 1 set : 6 tubs (\$62.50) 2 sets : 12 tubs (\$125) $125 + 12.50 = 137.50$ $107\% \times 137.50 = 147.125$ $\approx \\$147.00$
Q16	a) $12 \times 4 = 48$ $12 \times 3 = 36$ $48 \div 2 = 24$ $24 \times 3 = 72$ b) $\frac{2}{5} + \frac{2}{3} = \frac{4}{15}$ $\frac{3}{4} \times \frac{4}{15} = \frac{3}{15}$ $\frac{3}{15} = \frac{1}{5}$ c) Car : $12 \times 4 = 48$ trucks : 72 Cart trucks : $72 + 48 = 120$ ($\frac{3}{8}$ of total) $\frac{1}{8}$ of total : $120 \div 3 = 40$ $\frac{5}{8}$ of total : $40 \times 5 = 200$ MG : $200 - 60 = 140$
Q17	a)  b) $10 \times 6 \times 7 = 420$ $420 - 11 = 409$ c) $10 \times 7 = 70$ $70 \times 2 = 140$ $(6-2) \times 7 = 28$ $28 \times 2 = 56$ $4 \times 8 = 31$ $140 + 32 + 56 = 228$

END

