AI TONG SCHOOL

2014
MID-YEAR EXAMINATION
PRIMARY 5

MATHEMATICS
Paper 1
(Booklets A and B)

DURATION : 50 min

DATE : 12 May 2014

INSTRUCTIONS

Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.
You are not allowed to use a calculator.

Name : _____ ( ) **Marks :**

Class : Primary 5 _____

5M _____

Paper 1	/40
Paper 2	/60
Total	/100

Parent's Signature : _____

Date : _____

Paper 1
Booklet A

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

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1 In 8 701 923, which digit is in the ten thousands place?

(1) 1
(2) 2
(3) 8
(4) 0

2 Which of the following is **five hundred and four thousand and sixty-two** in figures?

(1) 4 500 062
(2) 504 062
(3) 62 504
(4) 4562

3 Mr Wong read this on the HDB website :

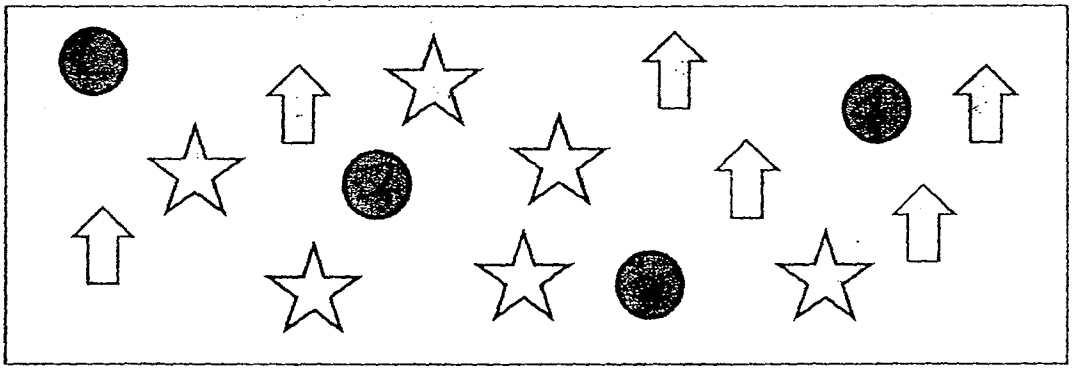
Facts On Ang Mo Kio town:

Estimated HDB Resident Population	150 000

If the resident population had been rounded off to the nearest thousand, which one of the following could be the actual population size of Ang Mo Kio town?

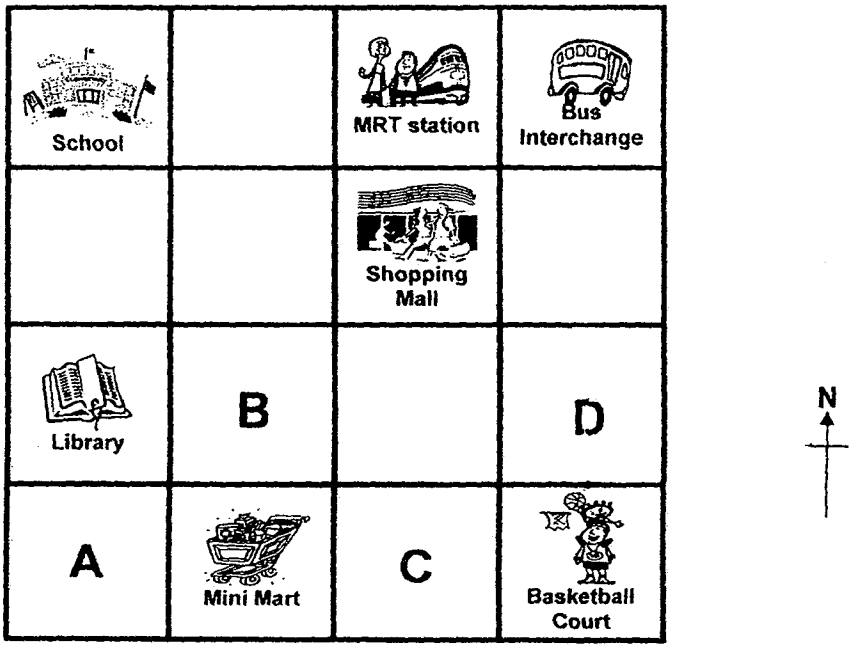
(1) 151 025
(2) 150 399
(3) 149 490
(4) 148 955

4 What is the ratio of the number of stars to the number of circles to the number of arrows?



(1) 3 : 2 : 3
(2) 6 : 4 : 5
(3) 2 : 1 : 2
(4) 1 : 4 : 1

5 The grid shows the location of some landmarks in Yee Shoon Neighbourhood.



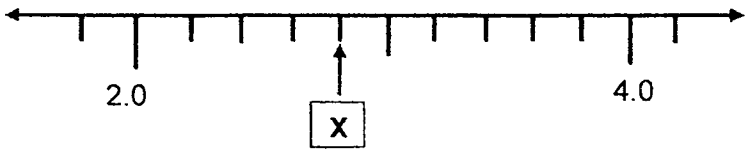
At first, Mdm Fatimah was facing west towards the library.
She then made a $\frac{1}{4}$-turn in the anti-clockwise direction to face the basketball court. In which part of the grid was she standing?

(1) A
(2) B
(3) C
(4) D

6 Peter has twice as much money as Qi Jun. Qi Jun has 4 times as much money as Rita. What is the ratio of the amount of Peter's money to Qi Jun's money to Rita's money?

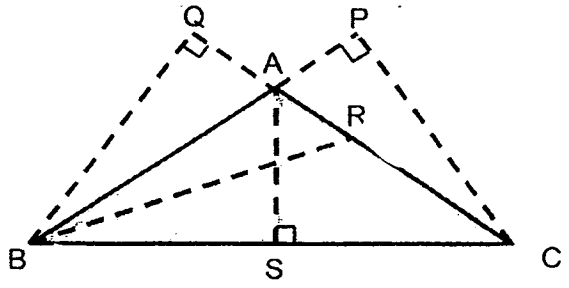
(1) 2 : 4 : 1
(2) 2 : 5 : 1
(3) 8 : 4 : 1
(4) 8 : 2 : 1

7 Write the decimal represented by X.



(1) 2.04
(2) 2.08
(3) 2.40
(4) 2.80

8 The figure below shows triangle ABC and some straight lines.



Line AS is the corresponding height to base BC.
Which line is the corresponding height to base AC?

(1) BR
(2) CP
(3) BQ
(4) AP

9 At Famous Bookstore, notebooks are only sold in packs of 6. Each pack is sold at $9. David was given $50 to buy as many notebooks as possible. How many notebooks can he buy?

(1) 72
(2) 54
(3) 33
(4) 30

10 A T-shirt and a pair of shorts cost $120 altogether. The pair of shorts cost $\frac{3}{5}$ as much as the T-shirt. How much did the T-shirt cost?

(1) $75
(2) $72
(3) $45
(4) $30

11 Sue spent $\frac{3}{7}$ of her salary on food, $\frac{1}{3}$ of the remainder on transport and saved the rest. What fraction of her salary was saved?

(1) $\frac{4}{21}$

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

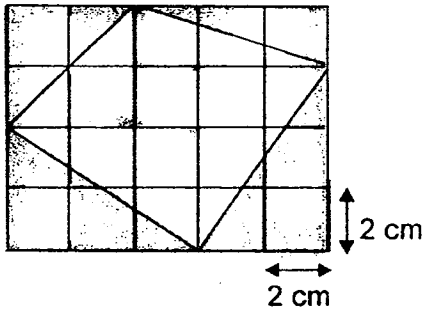
(3) $\frac{8}{21}$

(4) $\frac{13}{21}$

12 In a car park, there were 14 cars and motorcycles. Each car had 4 wheels and each motorcycle had 2 wheels. Altogether, there were 44 wheels. How many cars were there?

(1) 6
(2) 7
(3) 8
(4) 14

13 The figure below shows a 4-sided figure drawn on a square grid. Find the **unshaded** area.



(1) 10 cm^2
(2) 24 cm^2
(3) 38 cm^2
(4) 42 cm^2

14 Siti paid \$4.20 for 1 kg of sugar and 3 kg of flour. If 1 kg of sugar and 1 kg of flour cost \$1.50, find the cost of 1 kg of flour.

(1) \$2.70
(2) \$1.35
(3) \$1.20
(4) \$1.05

15 $\frac{1}{3}$ of Carol's height is equal to $\frac{2}{7}$ of Pui Ling's height. If Pui Ling is 24 cm taller than Carol, how tall is Carol?

(1) 72 cm
(2) 96 cm
(3) 144 cm
(4) 168 cm

Booklet B

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

16 What is the product of 704 and 68?

Ans: _____

17 Find the value of $9 + (82 - 46) \div 3$.

Ans: _____

18 A total of \$42 000 was collected from 300 participants attending a seminar. How much did each participant pay?

Ans: \$ _____

19 4 children shared 5 pizzas equally. How much pizza did each child get?

Ans: _____

20 What is the missing number in the box?

$4 : 20 = 15 : \square$

Ans: _____

---

21 A bottle contained $\frac{9}{10}\ell$ of milk. Benny drank $\frac{1}{6}$ of this amount. How many litres of milk did he drink? (Leave your answer as a fraction in its simplest form.)

Ans: _____ ℓ

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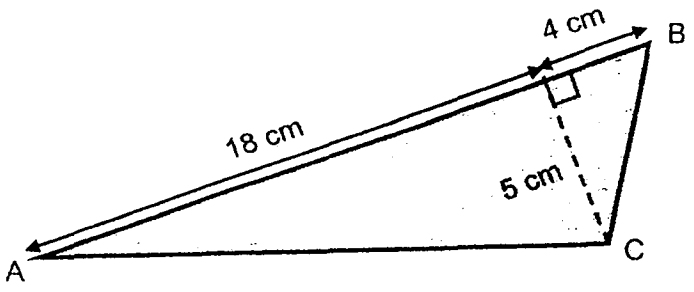
22 Find the area of triangle ABC below.



Ans: _____ cm^2

3

23 Express 25 cm as a fraction of 5 m in the simplest form.

_____

---

24 The ages of Aini and Belinda are 10 years and 25 years respectively. What is the ratio of Aini's age to Belinda's age **in 8 years' time**? Express your answer in the simplest form.

Ans: _____

---

25 I am a **5-digit even** number. The digit 3 is in the thousands place.
My tens digit is twice my thousands digit. The digit 7 stands for 700 and the digit 8 has a value of 80 000. I am a multiple of 5. What number am I?

Ans: _____

3

Questions **26** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided.
For questions which require units, give your answers in the units stated. (10 marks)

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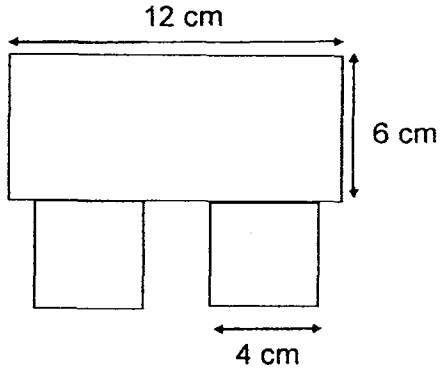
26 The figure below is made up of a rectangle and 2 identical squares.
What is the perimeter of the figure?



Ans: _____cm

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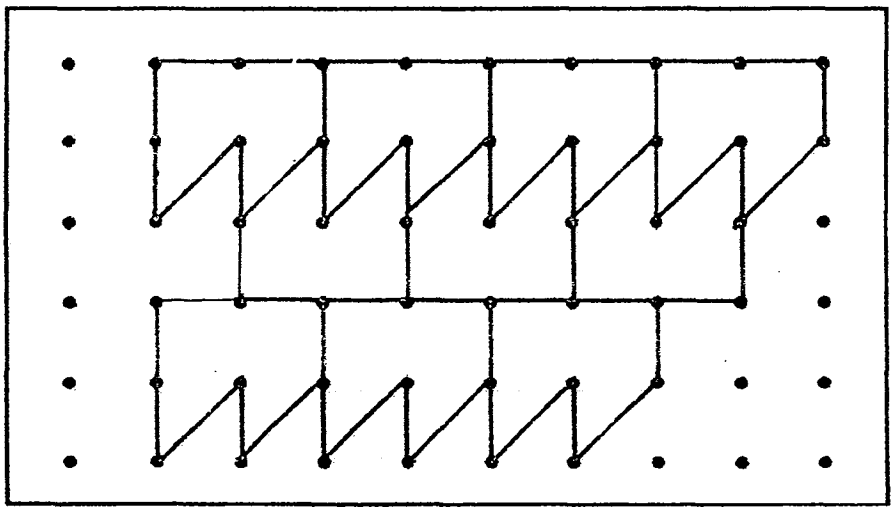
27 Study the tessellation below carefully.

In the space below,
(a) shade **one** unit shape
and
(b) extend the tessellation by drawing **one** more unit shape.



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28 Last year, the number of fiction to non-fiction books in a community library is in the ratio of 5 : 4. This year, 840 fiction books were added such that there were 1815 fiction books now. How many **more** fiction than non-fiction books were there last year?

Ans: _____

---

29 Chef Eric had $\frac{7}{8}$ kg of crabmeat. He cooked some of this and had $\frac{1}{4}$ kg left. The amount he cooked was divided into two portions equally. How many kilograms of crabmeat were there in each portion? Give your answer in the simplest form.

Ans: _____ kg

---

30 Mrs Lee bought some chocolate bars for her nephews and nieces. If she gave each child 6 bars, she would have 1 bar left. If she gave each child 7 bars, she would need another 4 bars. If Mrs Lee had fewer than 10 nieces and nephews, how many chocolate bars did she buy?

Ans: _____

End Of Paper 1

AI TONGSCHOOL

2014
MID-YEAR EXAMINATION
PRIMARY 5

MATHEMATICS
Paper 2

DURATION : 1 h 40 min
DATE : 12 May 2014

INSTRUCTIONS
Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions.
You are allowed to use a calculator.

Name : _____ ( )

Class : Primary 5 _____

5M _____

Parent's Signature :_____

Date :_____

Marks :

Total	/60

Paper 2

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question 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 lengths of the sides of a triangle are in the ratio 5 : 3 : 4. The perimeter of the triangle is 204 cm. Find the length of the longest side.

Ans: _____ cm

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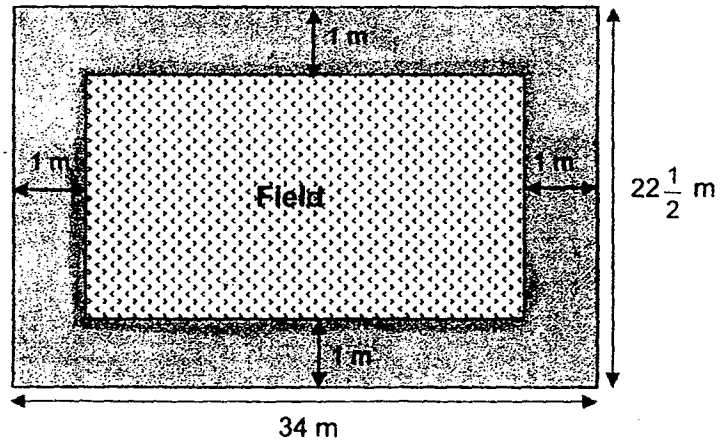
2. The figure below shows a rectangular school field with a running path around it. The running path is 1 m wide all round. What is the area of the field?



Ans: _____ m^2

4

3. Baby Jayne's mass is $2\frac{1}{12}$ kg. Her brother's mass is 8 times as much. What is the total mass of the 2 children?

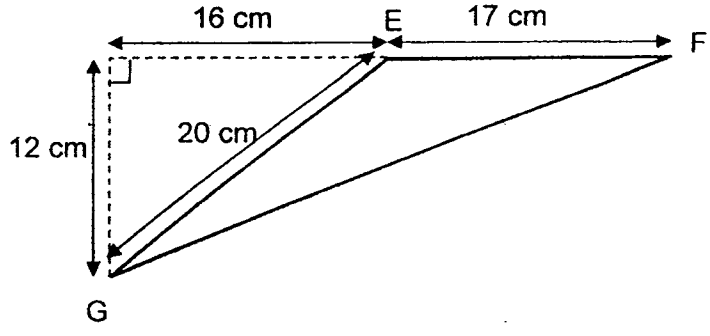
Ans: _____ kg

4. Susan and Linda rented one pair of inline skates from 5.20 p.m. to 7 p.m. If they shared the cost equally, how much did each girl have to pay?

Rental of Inline Skates
1st hour : $8
Every subsequent half-hour or part thereof : $3.20

Ans: $ _____

5. Find the area of triangle EFG below.



Ans: _____ cm^2

6

For questions **6** to **18**, show your working clearly in the space provided for each question and write the answers in the spaces provided.
The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (50 marks)

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6. The sum of two numbers is 105. The difference between them is 21. What is the ratio of the smaller number to the bigger number? Express your answer in the simplest form.

Ans: _____ [3]

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7. For a school event, MacWendi was the sponsor for food. MacWendi provided 3684 burgers. These were all packed into several cartons and 1 smaller box. Each fully packed carton contained 48 burgers.

   (a) How many fully packed cartons were there?
   (b) How many burgers were there in the smaller box?

Ans: (a) _____ [2]

(b) _____ [1]

---

8 Kim had 5 times as much money as Boon Yong as first. After Kim spent $68 and Boon Yong received another $36, they had an equal amount of money. How much did Kim have in the end?

Ans: _____ [3]

---

9 Mr Lee spent $\frac{1}{5}$ of his bonus on a mobile phone and $\frac{5}{8}$ of his remaining money on a vacation package. He then gave $800 to his wife and saved the remaining $580. How much did Mr Lee spend on the mobile phone?

Ans: _____ [3]

6

10 The pupils of Primary 5 Integrity each joins at least one CCA – the Sports Club or the Choir. A few of them join both the Sports Club and the Choir.

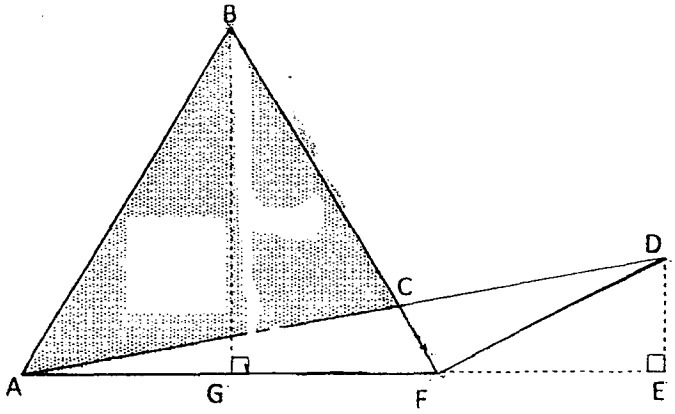
$\frac{3}{4}$ of the pupils are in the Sports Club. $\frac{2}{5}$ of the pupils are in the Choir.

If there are 40 pupils in the class, how many pupils joined both CCAs?

Ans: _____ [4]

4

11 In the figure below, ABF and ADF are overlapping triangles.
BG is thrice the length of DE. The area of triangle ADF is 138 cm^2.
If the ratio of the area of the shaded part to the area of the unshaded part in triangle ABF is 4 : 1, what is the area of the shaded part?



Ans: _____ [4]

4

12 Mrs Tan bought a new bottle of olive oil. She used an equal amount every day to cook her meals. At the end of the 12th day, $\frac{1}{4}$ of the bottle was left. At the end of the 13th day, there were 240 mℓ of olive oil left. What was the amount of olive oil in the bottle at first?

Ans: _____ [4]

4

13 There were 30 questions in a Science online quiz. 3 marks were given for each correct answer and 1 mark was deducted for each wrong answer. Ken answered every question and scored 66 marks. How many questions did he answer wrongly?

Ans: _____ [4]

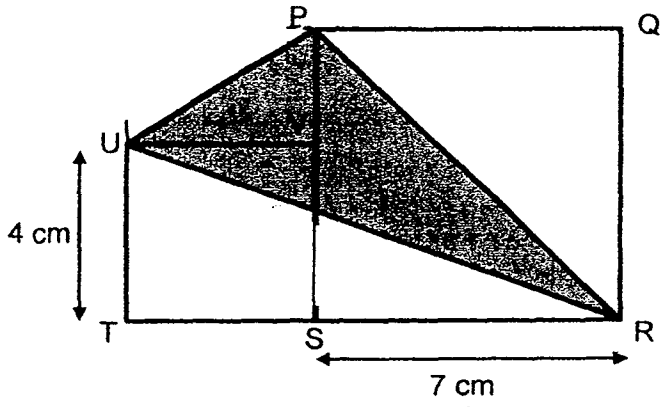
4

14 At the start of recess, there was an equal number of boys and girls in the canteen. Halfway through, $\frac{7}{15}$ of the boys and 84 girls left the canteen. There were then 21 more boys than girls still in the canteen. How many girls were still in the canteen then?

Ans: _____ [4]

4

15. In the figure shown, STUV and PQRS are squares of sides 4 cm and 7 cm respectively. Find the area of triangle UPR.



Ans: _____ [4]

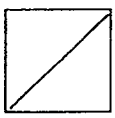
4

16. The ticket price for a charity funfair is given in the table below:

Ticket prices:	
Children (below 12 years old)	$ 18
Adults	$ 28

Last Sunday, the ratio of the number of children who attended the funfair to the number of adults who attended was 5 : 2. The total amount collected for the tickets sold was $9052. How many tickets sold were for adults?

Ans: _____ [4]



17 Last month, Farmer Chan had 840 fish in his fish farm. $\frac{1}{3}$ of the fish were catfish and the rest were tilapia. This month, Farmer Chan bought some catfish such that, in the end, $\frac{5}{9}$ of the fish were tilapia.

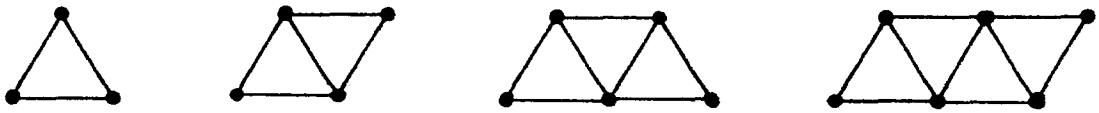
(a) How many tilapia were there in his farm?
(b) How many catfish did he buy?

Ans: (a) _____ [2]

(b) _____ [3]

5

18 Catherine drew some patterns of linking triangles using lines and dots:



She then recorded the information in the following table.

Pattern number	Number of lines	Number of dots
1	3	3
2	5	4
3	7	5
4	9	6
5	Ans : (a)_____ [1]	Ans : (a)_____ [1]

If this pattern continues,

(a) how many lines and dots are used to form pattern number 5? Complete the table above.

(b) how many dots are used to form pattern 15?

(c) how many triangles are formed with 513 lines ?

Ans: (b) _____ [1]

(c) _____ [2]

End of Paper
--- CHECK YOUR WORK CAREFULLY ---

5

Exam Paper 2014 Answer Sheet

School: AI TONG SCHOOL
Subject: PRIMARY 5 MATHEMATICS
Term: SA1

Paper 1

1)	4	6)	3	11)	3
2)	2	7)	4	12)	3
3)	2	8)	3	13)	4
4)	1	9)	4	14)	2
5)	4	10)	1	15)	3

16. 47872

17. 21

18. 140

19. $1\frac{1}{4}$

20. 75

21. $\frac{3}{20}$

22. 55

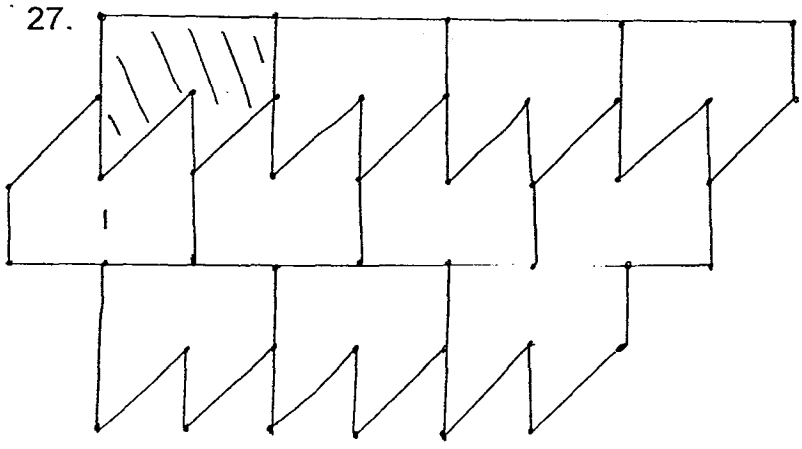
23. $\frac{1}{20}$

24. 6 : 11

25. 83760

26. 12 x 2 = 24
    6 x 2 = 12
    4 x 4 = 16
    24 + 12 + 16 = **52**

27.



28. 5u → 1815 – 840 = 975
    1u → 975 ÷ 5 = **195**

29. Amt used (2 portions) → $^{7}/_{8} - {}^{1}/_{4} = {}^{5}/_{8}$
    1 portion → $^{5}/_{8} \div 2 = {}^{5}/_{16}$

30. 1u → 5
    6u → 30
    30 + 1 = **31**

Paper 2

1. 5 + 3 + 4 = 12
   12u → 204
   1u → 17
   Longest side (5u) → 17 x 5 = **85**

2. Length of field → 34 – 1 – 1 = 32
   Breadth of field → $22^{1}/_{2} - 1 - 1 = 20^{1}/_{2}$
   Area of field → 32 x $20^{1}/_{2}$ = **656**

3. Mass of brother → $2^{1}/_{12}$ x 8 = $16^{2}/_{3}$
   Total mass of 2 children → $16^{2}/_{3} + 2^{1}/_{12}$ = **$18^{3}/_{4}$**

4. 30min → 3.20
   10min → 3.20
   Total cost (2 people) → 3.20 + 3.20 + 8 = 14.40
   1 person → 14.40 ÷ 2 = **7.20**

5. Base of EFG = EF = 17
   Height of EFG → 12
   Area of triangle → 0.5 x 12 x 7 = **102**

6. A + B = 105
   Diff → 21
   2u → 105 – 21 = 84
   1u → 42
   Smaller number = 42
   Bigger number = 42 + 21 = 63
   S : B
   42 : 63
   2 : 3

7. No. of cartons → 3684 ÷ 48 = 76 R 36
   (a) **76**
   (b) **36**

8. K: 5u – 68 → 1p
   B: 1u + 36 → 1p
   5u – 68 → 1u + 36

4u → 104
1u → 104 ÷ 4 = 26
5u → 26 x 5 = 130
K, end → 130 – 68 = **$62**

9. 3p → 580 + 800 = 1380
8p → $^{8}/_{3}$ x 1380 = 3680
4u → 8p
4u → 3680
1u → **$920**

10. $^{3}/_{4} = {}^{15}/_{20}$
$^{2}/_{5} = {}^{8}/_{20}$
1u → 40 ÷ 20 = 2
15u→ 2 x 15 = 30
8u → 2 x 8 = 16
30 + 16 = 46
46 – 40 = **6**

11. 138 x 3 = 414
414 ÷ 5 = 82.8
82.8 x 4 = **331.2cm^2**

12. 12 days – 3 days = 9 days
240 x 3 = 720
9 days → 720
1 day → 80
13 days → 1040
1040 + 240 = **1280ml**

13. Assume all correct.
A: 30 x 3 = 90
A: 90 – 66 = 24
A: 3 + 1 = 4
D: 24 ÷ 4 = **6**

14. 7u → 84 – 21 = 63
15u → 135
No. of girls → 135 – 84 = **51**

15. $^{1}/_{2}$ x 4 x (4 + 7) = 22
$^{1}/_{2}$ x 7 x 7 = 24.5
$^{1}/_{2}$ x 4 x (7 – 4) = 6
Total → 22 + 24.5 + 6 = 52.5
Area of fig. → 7 x 7 + 4 x 4 + 4 x (7 – 4) = 77
Area of triangle UPR → 77 – 52.5 = **24.5cm^2**

16. 18 x 5 = 90
28 x 2 = 56
90 + 56 = 146

9052 – 146 = 62
62 x 2 = **124**

17. (a) 6u → 840
1u → 140
T: 4u → **560**
(b) 560 ÷ 5 = 112
112 x 4 = 448
448 – 280 = **168**

18. (a) **11**; **7**
(b) 15 + 2 = **17**
(c) 513 – 3 = 510
510 ÷ 2 = 255
255 + 1 = **256**