NANYANG PRIMARY SCHOOL

SECOND SEMESTRAL EXAMINATION 2017

PRIMARY 5

MATHEMATICS

PAPER 1

DURATION: 1 HOUR

Booklet A	**/ 20**
Booklet B	**/ 25**

Paper 1 Total: / 45

Name: _____ ( )

Class: Primary 5 ( )

Date: _____

Any query on marks awarded should be raised by 8 November 2017. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's Signature: _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.
ANSWER ALL QUESTIONS.

YOU ARE **NOT** ALLOWED TO USE A CALCULATOR.

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 Arrange the following fractions from the largest to the smallest.

$$\frac{2}{5}, \frac{1}{3}, \frac{2}{9}, \frac{3}{8}$$

(1) $\frac{1}{3}, \frac{2}{5}, \frac{3}{8}, \frac{2}{9}$

(2) $\frac{2}{5}, \frac{1}{3}, \frac{2}{9}, \frac{3}{8}$

(3) $\frac{2}{5}, \frac{3}{8}, \frac{1}{3}, \frac{2}{9}$.

(4) $\frac{2}{9}, \frac{3}{8}, \frac{2}{5}, \frac{1}{3}$

2 What is the value of $126.5 \div 100 \times 10$?

(1) 1265

(2) 126.5

(3) 12.65

(4) 1.265

3 Ali had $200. He spent $40 on a shirt. What percentage of his money did he spend on the shirt?

(1) 20%

(2) 40%

(3) 60%

(4) 80%

4 Which one of the following is an equivalent ratio to 6 : 24?

(1) 4 : 1

(2) 1 : 4

(3) 5 : 1

(4) 1 : 5

5 Shanti and Li Ming shared a packet of sweets in the ratio 5 : 3. There were 160 sweets in the packet. How many sweets did Shanti receive?

(1) 20

(2) 32

(3) 60

(4) 100

6 At a party, there were 30 adults and 15 children. 12 out of 30 adults were women. What was the ratio of the number of men to the number of women to the number of children?

(1) 4 : 6 : 5

(2) 4 : 10 : 5

(3) 6 : 4 : 5

(4) 6 : 10 : 5

7 In a supermarket, apples are only sold in bags of 6. Each bag is sold at $2. Xin Jie has $8. How many apples can she buy at most?

(1) 12

(2) 24

(3) 27

(4) 54

8 The average mass of 3 girls is 58 kg and the average mass of 3 boys is 47 kg. What is the average mass of these 6 children?

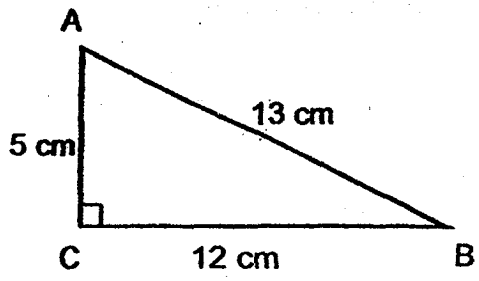
(1) 17.5 kg

(2) 35 kg

(3) 52.5 kg

(4) 105 kg

9 Find the area of triangle ABC below.



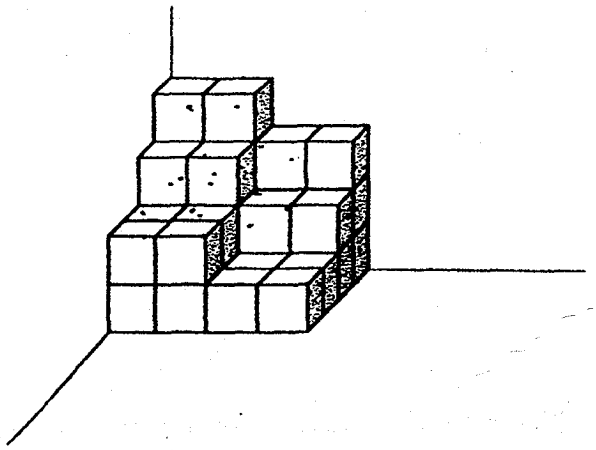
(1) 30 cm^2

(2) 32.5 cm^2

(3) 60 cm^2

(4) 78 cm^2

10 The solid figure below is made up of unit cubes.



How many more unit cubes need to be added to the solid figure to form a big cube made of 64 unit cubes?

(1) 28

(2) 36

(3) 43

(4) 48

11 The length of each piece of ribbon is 105 cm. What is the total length of 200 pieces of such ribbons?

(1) 210 cm

(2) 2100 cm

(3) 21 000 cm

(4) 210 000 cm

12 What is the value of $\frac{2}{3} \times \frac{3}{4}$?

(1) $\frac{5}{12}$

(2) $\frac{5}{7}$

(3) $\frac{6}{7}$

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

13 Mr Abdul bought 2 identical fans. The usual price of each fan was \$120. He was given a 10% discount for each fan. How much did he pay for the 2 fans after the discount?

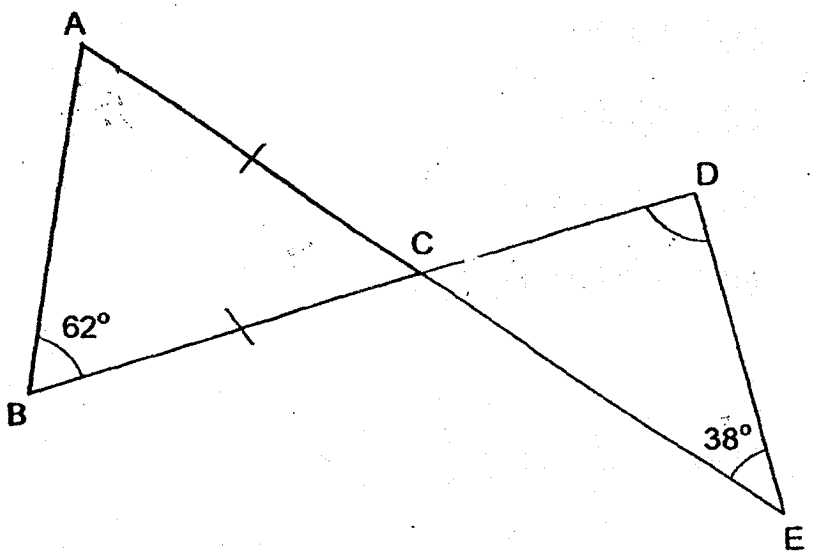
(1) \$108

(2) \$192

(3) \$216

(4) \$240

14 In the figure below, ACE and BCD are straight lines. AC = BC, $\angle ABC = 62^\circ$ and $\angle DEC = 38^\circ$. Find $\angle CDE$.



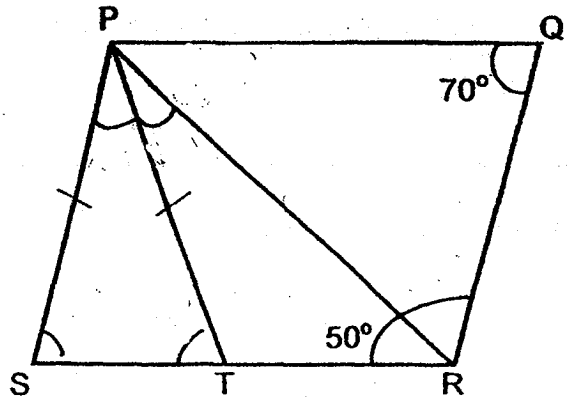
(1) 56°

(2) 62°

(3) 86°

(4) 118°

15 In the figure below, PQRS is a parallelogram. SP = PT, $\angle PQR = 70^\circ$ and $\angle SRP = 50^\circ$. Find $\angle TPR$.



(1) 20°

(2) 34°

(3) 60°

(4) 70°

Name: _____ ( ) Class: Pr 5 ( )

PAPER 1 (BOOKLET B)

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)

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16 Find the value of $8 + (29 + 46) \div 5 \times 2$.

Ans: _____

---

17 What is 24% of 500?

Ans: _____

---

18 Find the missing number in the box below.

$36 : \square = 12 : 9$

Ans: _____

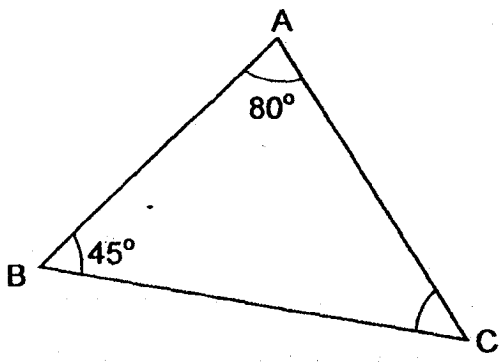
---

19 Express 14 kg 25 g in kg.

Ans: _____ kg

---

20 In the figure below, ABC is a triangle. Find $\angle ACB$.



Ans: _____ °

Questions **21** 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.

(20 marks)

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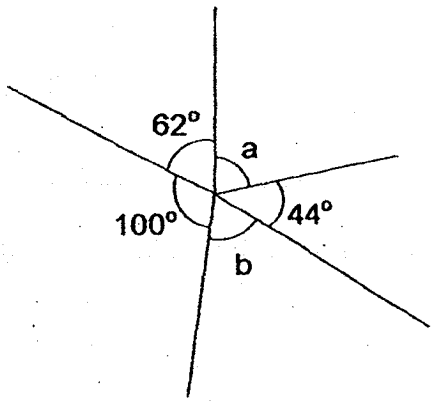
21 In the figure below, $\angle a = \angle b$. Find $\angle a$.



Ans: _____

---

22 Arun started saving to buy a bicycle. Each day, he saved \$2.50 less than the day before. At the end of the fourth day, he saved a total of \$95. How much money did he save on the fourth day?

Ans: \$_____

---

23 The costs of 3 dresses are \$105, \$87 and \$99 respectively. What is the average cost of the 3 dresses?

Ans: \$ _____

---

24 The average height of Aileen, May and June is 125 cm. The average height of Aileen and May is 123 cm. Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (√) in the correct column.

Statement	True	False	Not possible to tell
June's height is 129 cm.			
June is the tallest girl.			

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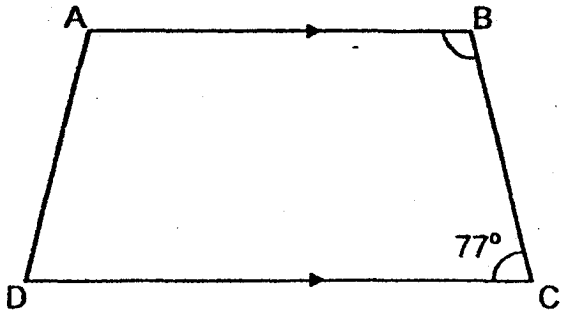
25 In the figure below, ABCD is a trapezium. AB is parallel to DC and $\angle BCD = 77^\circ$. Find $\angle ABC$.



Ans: _____

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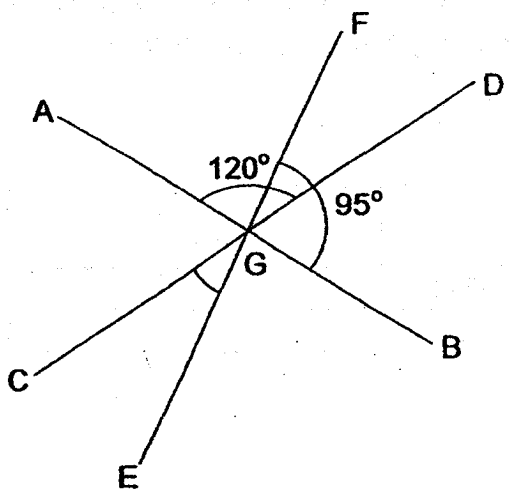
26 In the figure below, AGB, CGD and EGF are straight lines. $\angle AGD = 120^\circ$ and $\angle FGB = 95^\circ$. Find $\angle CGE$.



Ans: _____ °

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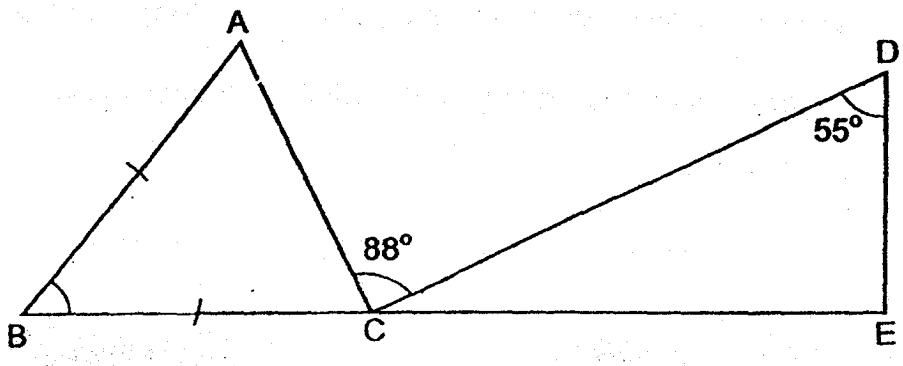
27 In the figure below, BCE is a straight line and AB = BC. ∠CED is a right angle, ∠ACD = 88° and ∠CDE = 55°. Find ∠ABC.



Ans: _____ °

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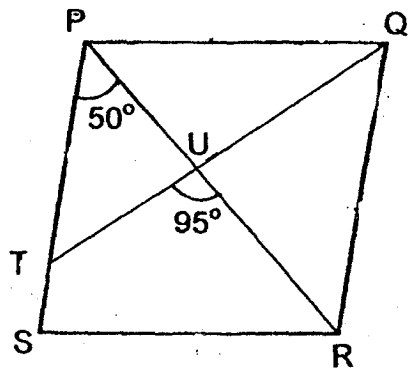
28 In the figure below, PQRS is a rhombus. PUR and QUT are straight lines. ∠TUR = 95° and ∠TPU = 50°. Find ∠PQU.



Ans: _____ °

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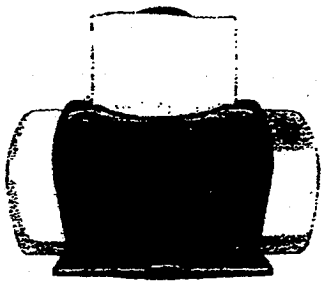
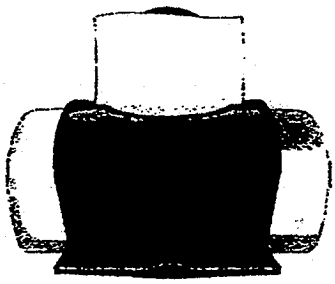
29 Two different shops offer the following discounts for the same printer. Daniel wants to buy the printer at a lower price.

(a) Which shop should he buy the printer from, Shop A or Shop B?

(b) How much would he pay for the printer from that shop?



Shop A
Usual price $240
Discount 25%



Shop B
Usual price $220
Discount 10%.

Ans: (a) Shop _____

(b) $ _____

30 Alisha worked at a café for 7 hours each day from Monday to Friday and worked for 5 hours on Saturday. She did not work on Sunday. She was paid the same amount of money for each hour that she worked from Monday to Friday. She was paid $1 more for each hour that she worked on Saturday than on Monday. She received a weekly pay of $285. How much was she paid for each hour on Monday?

Ans: $ _____

END OF PAPER

NANYANG PRIMARY SCHOOL

SECOND SEMESTRAL EXAMINATION 2017

PRIMARY 5

MATHEMATICS

PAPER 2

DURATION: 1 HOUR 30 MINUTES

Paper 2 Total	**/ 55**
GRAND TOTAL	**/ 100**

Name: _____ ( )

Class: Primary 5 ( )

Date: _____

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Parent's Signature: _____

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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 Nazri had 180 stamps. $\frac{1}{4}$ of them were from Malaysia, $\frac{1}{6}$ of them were from Japan and the rest were from Singapore. How many stamps from Singapore did he have?

Ans: _____

---

2 The price of a television before GST was $2320. What was the price of the television after adding 7% GST?

Ans: $ _____

---

3 The ratio of the length of a rectangle to its breadth is 7 : 5. The breadth of the rectangle is 16 cm shorter than its length. Find the length of the rectangle.

Ans: _____ cm

---

4 At a supermarket, grapes were sold at $0.80 per 100 g. Jane bought 1.6 kg of grapes. How much did she pay?

Ans: $_____

---

5 The average of three numbers is 90. Two of the numbers are 75 and 80. What is the third number?

Ans: _____

For questions **6** to **17**, show your working clearly in the space provided for each question 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)

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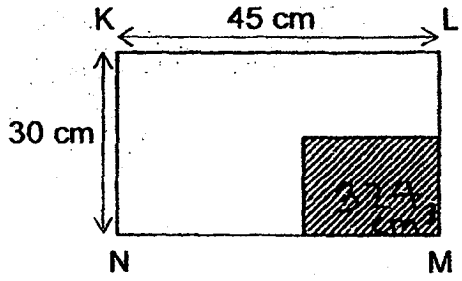
6 In the figure below, KLMN is a rectangle. 24% of the area of rectangle KLMN is shaded. Find the area of the unshaded part.



Ans: _____ [3]

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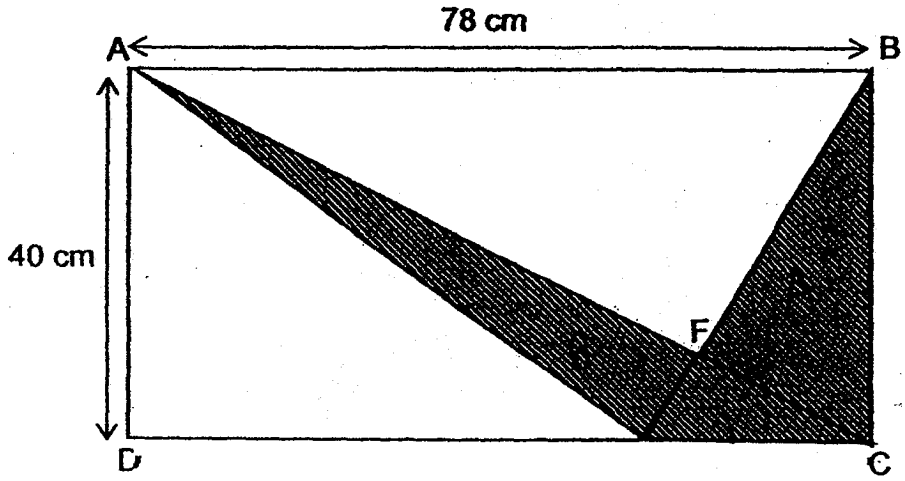
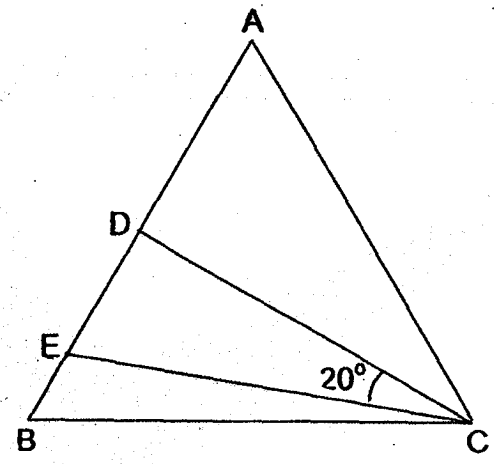
7 In the figure below, ABCD is a rectangle. AFC and BFE are straight lines. The area of triangle CEF is 130 cm^2. The length of EC is half the length of DE. What is the total area of the shaded parts?



Ans: _____ [3]

8 In the figure below, ABC is an equilateral triangle. ADC is a right-angled triangle and $\angle DCE = 20°$. Find $\angle BEC$.



Ans: _____ [3]

9 In the figure below, ABC and BCD are isosceles triangles. AB is parallel to CD, AB = BC = BD and $\angle ABC = 15^\circ$.

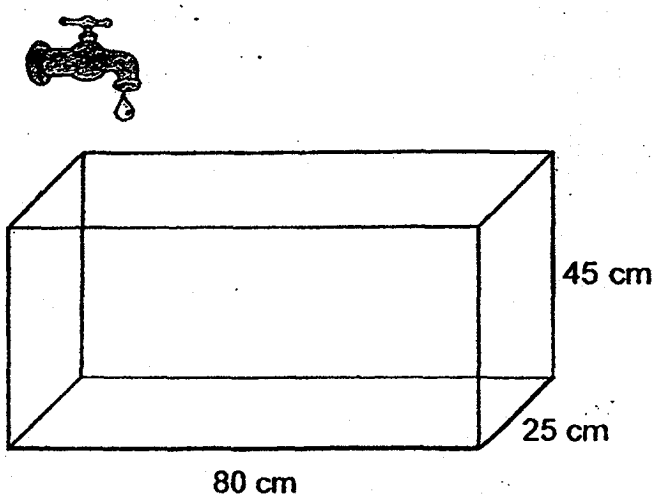
(a) Find $\angle BAC$.

(b) Find $\angle CBD$.

Ans: (a) _____ [1]

(b) _____ [2]

10 A rectangular tank is shown below.



At first, the tank was empty. The tap was turned on and water from the tap flowed at a rate of 2.5 litres per minute into the tank. How long did it take for the tap to fill $\frac{1}{2}$ of the tank with water? Give your answer in minutes.

Ans: _____ [3]

11 At first, Natasha had some stickers. She gave 20% of her stickers to Rita and $\frac{1}{4}$ of the remainder to her brother. After that, Natasha bought 77 stickers and had a total of 233 stickers in the end. How many stickers did Natasha have at first?

Ans: _____ [4]

12 Lucas and Dinesh had some marbles. The ratio of the number of marbles Lucas had to the number of marbles Dinesh had was 5 : 3 at first. After Lucas gave half of his marbles to Dinesh, Dinesh then had 36 marbles more than Lucas. How many marbles did they have altogether?

Ans: _____ [4]

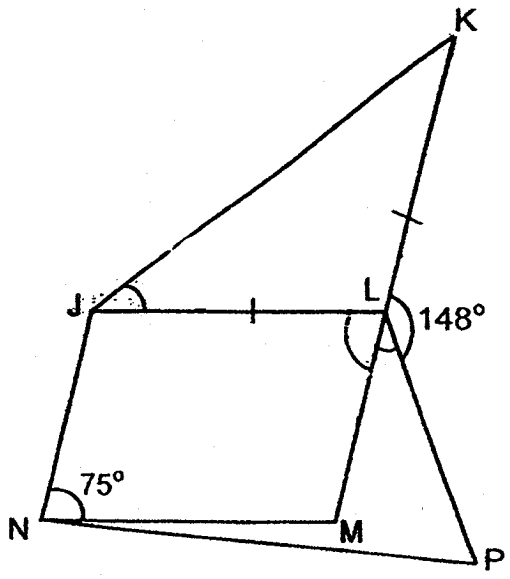
13 The average test score of a group of students was 72 marks. After three students who scored an average of 85 marks left the group, the average score of the remaining students became 69 marks. How many students were there in the group at first?

Ans: _____ [4]

14 In the figure below, JKL is an isosceles triangle with KL = JL. JLMN is a parallelogram. KLM is a straight line, $\angle KLP = 148^\circ$ and $\angle JNM = 75^\circ$.

(a) Find $\angle KJL$.

(b) Find $\angle JLP$.



Ans: (a) _____ [2]

(b) _____ [2]

15 The figures below are made up of identical unit squares. The length of each unit square is 3 cm.

(a) What is the perimeter of Figure 3?

(b) How many unit squares are there in Figure 20?

(c) Which figure has 397 unit squares?

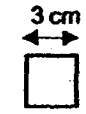


Figure 1

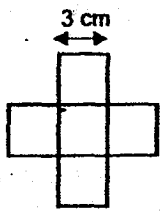


Figure 2

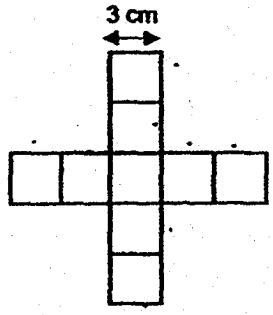


Figure 3

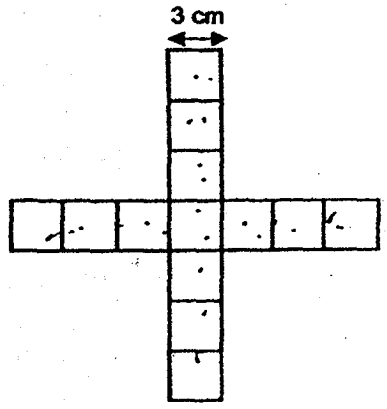


Figure 4

Ans: (a) _____ [1]

(b) _____ [2]

(c) Figure _____ [2]

16 Mr Chan drove to a shopping mall last Saturday.

(a) The table below shows the parking charges at the carpark in the shopping mall.

Monday to Sunday	$2.00 per hour from 8 a.m. to 7 p.m. or part thereof
	$3.00 per hour after 7 p.m. or part thereof

Mr Chan drove into the carpark at 3.30 p.m. and drove out of the carpark at 7.10 p.m. on that day. How much did he pay for the parking charges?

(b) Mr Chan made his way to a sports shop after he parked his car. A $10 voucher was given for every $180 spent in the sports shop. He paid the same price for each pair of shoes for each of his 3 children. He realised that he would have to spend at least $6 more to be able to exchange for $30 worth of vouchers in total. How much did he pay for each pair of shoes?

Ans: (a) _____ [2]

(b) _____ [3]

17 Mrs Chew had some red, blue and green buttons. She used $\frac{1}{5}$ of the red buttons for a dress and $\frac{1}{6}$ of the remaining red buttons for a blouse. She then had 350 buttons left altogether. $\frac{2}{5}$ of the red buttons left was equal to $\frac{1}{4}$ of the blue buttons. The ratio of the number of red buttons left to the number of green buttons was 10 : 9. How many red buttons did she have at first?

Ans: _____ [4]

END OF PAPER

SCHOOL : NANYANG PRIMARY SCHOOL

LEVEL : PRIMARY 5
SUBJECT : MATH
TERM : 2017 SA2

CONTACT :

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	1	2	4	3	2	3	1	1

Q 11	Q12	Q13	Q14	Q15
3	4	3	3	1

PAPER 1 BOOKLET B

Q16)	38
Q17)	120
Q18)	27
Q19)	14.025
Q20)	55
Q21)	360 – 100 - 62 – 44 = 154 154 ÷ 2 = **77**
Q22)	\$2.50 x 6 = \$15 \$95 - \$15 = \$80 \$80 ÷ 4 = **\$20**
Q23)	\$105 + \$87 + \$99 =\$291 \$291 ÷ 3 = **\$97**
Q24)	125 x 3 = 375 123 x 2 = 246 375 – 246 = **129**
Q25)	180° - 77 ° =**103°**
Q26)	120° + 95 ° = 215° 215° – 180° = **35°**
Q27)	180° – 50° – 90° = 35° 180° – 88° – 35° = 57° 180° - 57° - 57° = **66°**
Q28)	180° - 50° - 95° = **35°**
Q29)	Shop A : 25/100 x \$240 = \$60

	$240 - $60 = $180 Shop B : 10/100 x $220 = $22 $220 - $22 = $$198 (a) **Shop A** (b) **$180**
Q30)	7 x 5 = 35 $1 x 5 = $5 $285 - $5 = $280 35 + 5 = 40(No. of hours weekly) $280 ÷ 40 = **$7**

PAPER 2

Q1)	180 x ¼ =45 180 x 1/6 = 30 180 – 45 – 30 = **105**
Q2)	$2320 x 7% = $162.40 $2320 + $162.40 = **$2482.40**
Q3)	2u → 16 1u → 8 7u → 8 x 7 = **56cm**
Q4)	1.6kg = 1600g 1600 ÷ 100 = 16(No. of sets bought) $0.80 x 16 = **$12.80**
Q5)	90 x 3 = 270 270 – 75 - 80 = **115**
Q6)	45 x 30 = 1350 (Area of KLMN) 24% x 1350 = 324 (Shaded Area) 1350 -324 = **1026 cm^2**
Q7)	78 ÷ 3 = 26 (EC) 26 x 2 = 52 (DE) 130 ÷ 26 ÷ ½ = 10 (Ht of triangle FEC) 40 – 10 = 30 (Ht of triangle AFB) Area of ADE → ½ x 40 cm x 52 cm = 1040 cm^2 Area of ABF → ½ x 78 cm x 30 cm = 1170 cm^2 Area of ABCD → 78 cm x 40 cm = 3120 cm^2 Area of shaded parts → (3120 – 1040 – 1170) cm^2 = **910 cm^2**

Q8) $180^0 - 20^0 - 90^0 = 70^0$ (Angle DEC)
$180^0 - 70^0 = \underline{110^0}$ (Angle BEC)

Q9) (a) $180^0 - 15^0 = 165^00$ (Angle BAC ÷ Angle ACB)
$165^0 \div 2 = \underline{82.5^0}$ (Angle BAC)

(b) Angle BCD = 15^0 (Alternate Angle)
$180^0 - 15^0 - 15^0 = \underline{150^0}$ (Angle CBD)

Q10) $45 \div 2 = 22.5$
$80 \times 25 \times 22.5 = 45000$
$45000\ cm^3 = 45\ L$
$45 \div 2.5 = \underline{18}$

Q11) $288 \div 2 = 144$
(At first) 3U → $144 - 18 + 60 = 186$
1U → $186 \div 3 = 62$
$288 - 122 = \underline{166}$

Q12)

L	:	D	:	Total
5	:	3	:	8
= 10	:	6	:	16

$10 \div 2 = 5$ (what L gave to D)
$6 + 5 = 11$ (what D has now)
$10 - 5 = 5$ (what L has now)
$11 - 5 = 6$ (Difference)
6 Units → 36
1 Unit → $36 \div 6 = 6$
16 Units → $6 \times 16 = \underline{96}$

Q13) $85 \times 3 = 255$
$72 - 69 = 3$
$72 \times 3 = 216$
$255 - 216 = 39$
$39 \div 3 = 13$
$13 + 3 = \underline{16}$

Q14) (a) $360^0 - 148^0 - 107^0 = 105^0$
$180^0 - 105^0 = 75^0$
$75^0 \div 2 = \underline{37.5^0}$

(b) $180^0 - 148^0 = 32^0$

Nanyang Sec Math

	$75^0 + 32^0 = \underline{\mathbf{107^0}}$
Q15)	(a) $3 \times 20 = \underline{\mathbf{60}}$ (b) $20 - 1 = 19$ $19 \times 4 = 76$ $76 + 1 = \underline{\mathbf{77}}$ (c) $397 - 1 = 396$ $396 \div 4 = 99$ $99 + 1 = \underline{\mathbf{100}}$
Q16)	(a) $2 + $2 + $2 + $2 + $3 = **$11** (b) $180 x 3 = $540 $540 - $6 = $534 $534 ÷ 3 = **$178**
Q17)	1 – 1/5 = 4/5 4/5 x 1/6 = 2/15 4/5 – 2/15 = 2/3 (R left) 2/5 of R = ¼ of B 2/5 of R = 2/8 of B R : B R : G 5 : 8 10: 9 10 : 16 R : B : G : Total 10 : 16 : 9 : 35 35 Units → 350 1 Unit → 350 ÷ 35 = 10 10 Units → 10 x 10 = 100 (R left) 2/3 of R → 100 1/3 of R → 100 ÷ 2 = 50 3/3 of R → 50 x 3 = **150**