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Name : _____ ( )

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2017 Semestral Assessment One

Paper 1

Booklet A

5 May 2017

15 QUESTIONS
20 MARKS

TOTAL TIME FOR BOOKLET A & B : 50 MINUTES

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.

This booklet consists of 9 printed pages including the cover page.

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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, 4) on the Optical Answer Sheet. (20 marks)

---

1) In the numeral 824 031, the value of the digit 4 is _____.

(1) 40

(2) 400

(3) 4000

(4) 40 000

2) Which of the following is correct?

(1) $\frac{7}{10} = 7\%$

(2) $0.37 = 3.7\%$

(3) $3\% = 0.3$

(4) $75\% = \frac{3}{4}$

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3) A rectangular field had a length of $8j$ metres and a breadth of 40 metres. Edson ran round the field once. Express the total distance Edson ran in terms of j.

(1) $(8j + 40)$ m

(2) $(16j + 40)$ m

(3) $(16j + 80)$ m

(4) $(32j + 80)$ m

4) $\frac{21}{49} = \frac{12}{\boxed{?}}$

What is the missing number in the box?

(1) 7

(2) 24

(3) 28

(4) 40

5) Mrs Ngiam baked $9w$ cookies and gave 13 cookies to each of her pupils. She had $6w$ cookies left. How many pupils did she have?

(1) $\frac{3w}{13}$

(2) $\frac{15w}{13}$

(3) $\frac{9w-13}{6w}$

(4) $\frac{6w}{9w+13}$

6) In a class of 39 pupils, 18 of them are boys. What is the ratio of the number of girls to the number of boys?

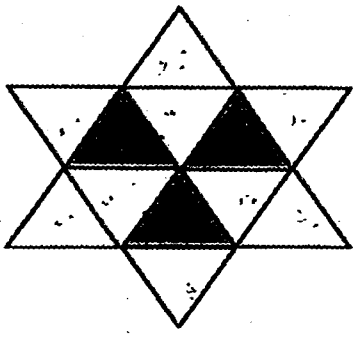
(1) 6 : 7

(2) 7 : 6

(3) 13 : 6

(4) 13 : 7

7) The figure below is made up of identical triangles. How many more triangles must be shaded so that the ratio of the number of unshaded triangles to the total number of triangles is 10 : 24?



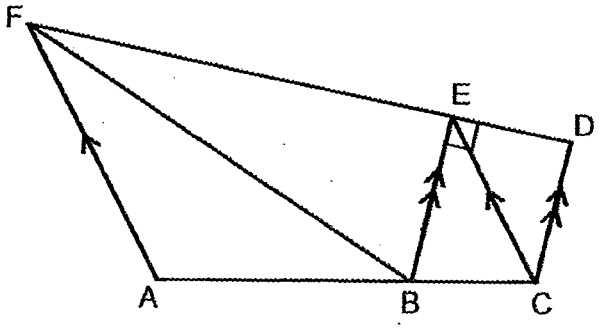
(1) 7

(2) 2

(3) 10

(4) 4

8) In the figure below, ABC and DEF are straight lines. Which figure is the trapezium?



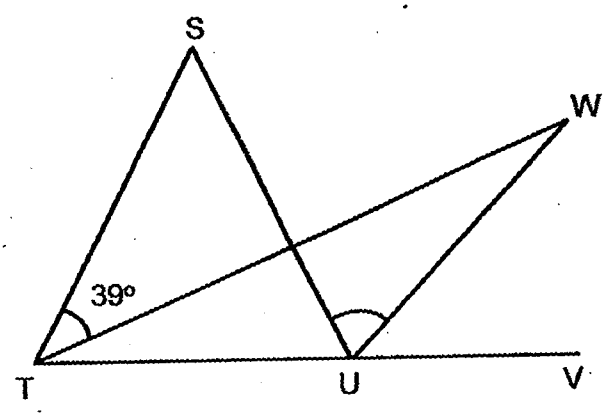
(1) ABEF

(2) ACEF

(3) BCDF

(4) BCEF

9) In the figure below, STU is an equilateral triangle. TUV is a straight line and TUW is an isosceles triangle where TU = UW. $\angle STW = 39^\circ$. Find $\angle SUW$.



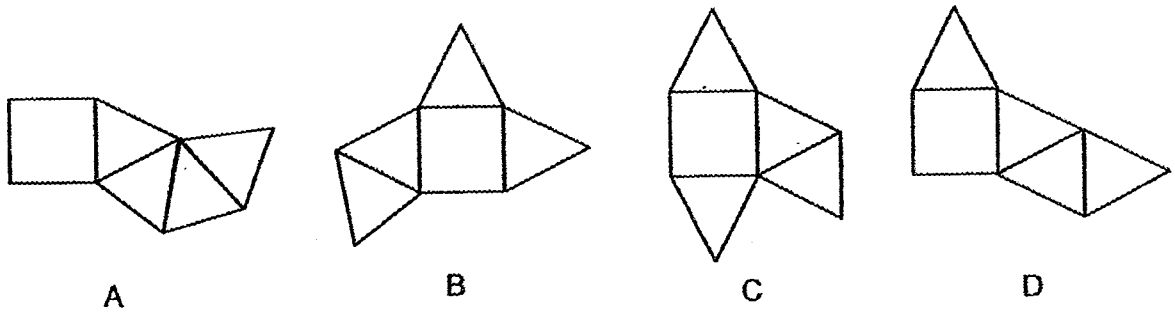
(1) 78°

(2) 81°

(3) 99°

(4) 138°

10) Which of the following nets can be folded to form a pyramid?



(1) A and B only

(2) B and D only

(3) A, B and C only

(4) A, B and D only

11) Jeanna had 27 more stickers than Tabitha. Tabitha gave 12 of her stickers to Jeanna. Now, Jeanna has 4 times as many stickers as Tabitha. How many stickers did Tabitha have at first?

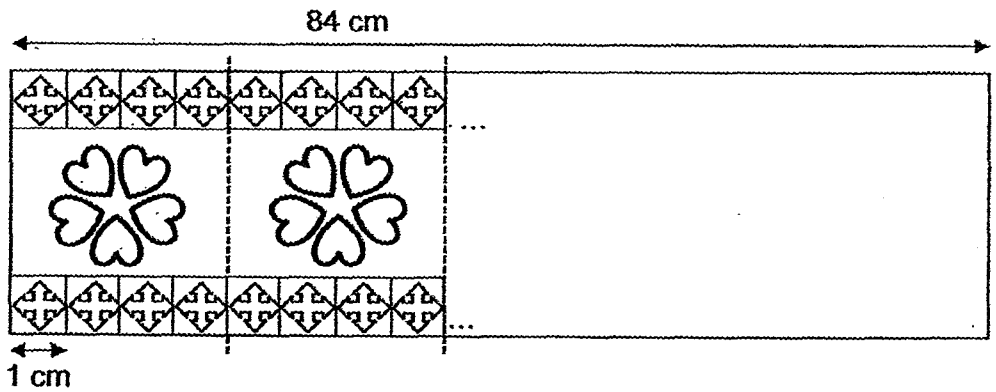
(1) 13

(2) 17

(3) 25

(4) 29

12) A piece of ribbon 84 cm long has identical and printed on it. They are printed in a repeated pattern as shown below. The width of each is 1 cm long.



How many are there in the piece of ribbon?

(1) 105

(2) 112

(3) 140

(4) 168

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13) Maverick had a total of 60 peach tarts and blueberry tarts for sale. After selling $\frac{1}{3}$ of the peach tarts and $\frac{2}{3}$ of the blueberry tarts, he had twice as many blueberry tarts left as peach tarts. How many blueberry tarts did Maverick sell?

(1) 15

(2) 32

(3) 48

(4) 50

14) Ivan spent $\frac{1}{4}$ of his money on a school bag and $\frac{1}{6}$ of the remainder on a pair of sneakers. He spent $240 altogether. How much money had he left?

(1) $150

(2) $336

(3) $400

(4) $576

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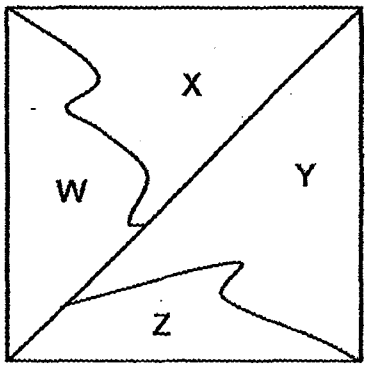
15) The square below is divided into four parts W, X, Y and Z.



The ratio of Area W to Area X is 2 : 3. Area Z is 50% of Area X.
Express Area Y as a percentage of the area of the square.

(1) 60%

(2) 35%

(3) 30%

(4) 15%

End of Booklet A

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Name : _____ ( )

Class : Primary 6 _____

Primary 6 Mathematics

2017 Semestral Assessment One

Paper 1

Booklet B

5 May 2017

15 questions
20 marks

TOTAL TIME FOR BOOKLET A & B : 50 MINUTES

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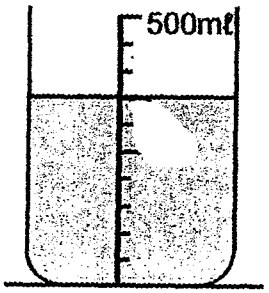
Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

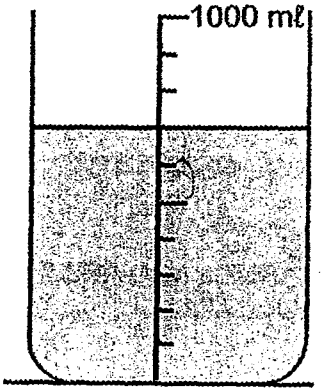
16. The sum of two numbers is 3989. Their difference is 1759. What is the smaller number?

Ans : _____

17. What is the total volume of water in the 2 beakers as shown below?



Beaker A



Beaker B

Ans : _____ ℓ

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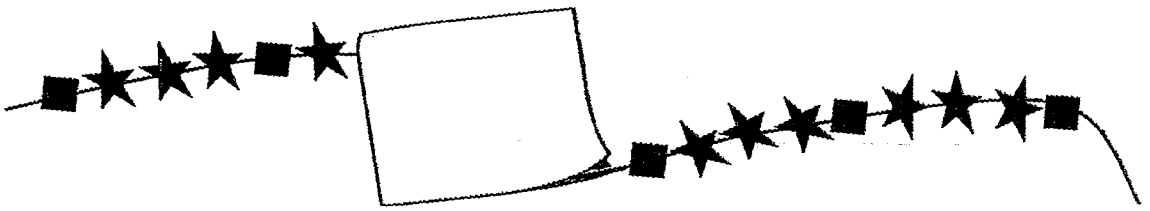
Do not write in this space.

18. Five years ago, Freda was k years old. She is 3 years older than Richelle. How old is Richelle now?

Ans : _____

19. A string of beads is partly covered by a piece of paper as shown below. There are 2 squares between every 3 stars. There are 9 squares that are covered by the paper. How many stars are covered by the paper?



Ans : _____

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Do not write in this space.

20. $\frac{3}{4}$ of a bag of jelly beans was given to some children. Each child received $\frac{1}{8}$ of the jelly beans in the bag. How many children were there?

Ans : _____

21. The total cost of a piece of brownie and a cup of coffee is \$7.50. The cost of the brownie is $\frac{2}{3}$ of the cost of the cup of coffee. What is the cost of a piece of brownie?

Ans : \$ _____

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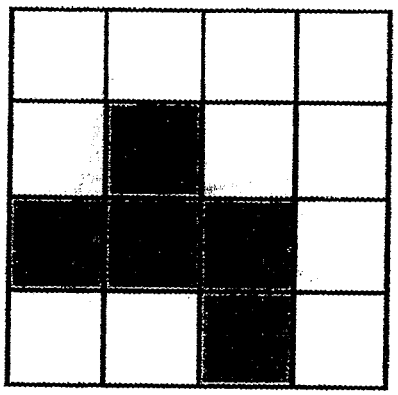
22. Janette gave 30% of her crystals to Ally. Janette had 420 crystals left. Ally had a total of 300 crystals after receiving from Janette. How many crystals did Ally have at first?

Do not write in this space.

Ans : _____

23. The figure below shows part of the net of a cube. Shade one more square to complete the net.



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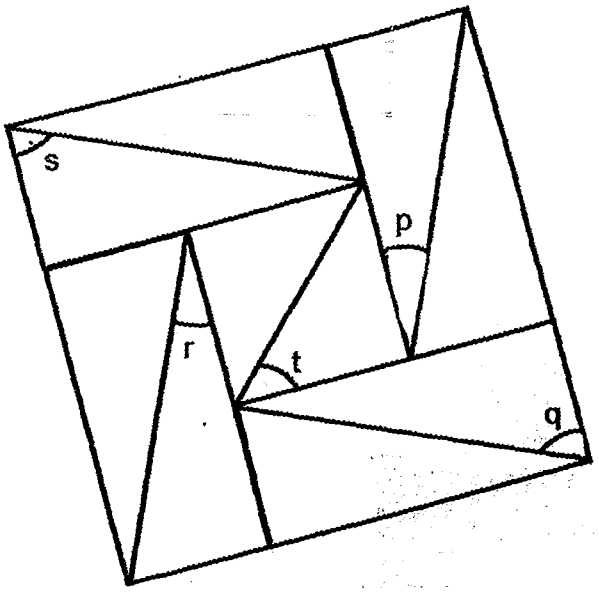
24. Claudia bought 3 pens and 4 highlighters. Each pen cost $\$g$. She gave the cashier \$5 and received a change of \$1.40. How much did the 4 highlighters cost? Leave your answers in terms of g.

Do not write in this space.

Ans : \$ _____

25. The figure below is made up of 4 identical rectangles with a square in the middle. Find the sum of $\angle p$, $\angle q$, $\angle r$, $\angle s$, and $\angle t$.



Ans : _____ °

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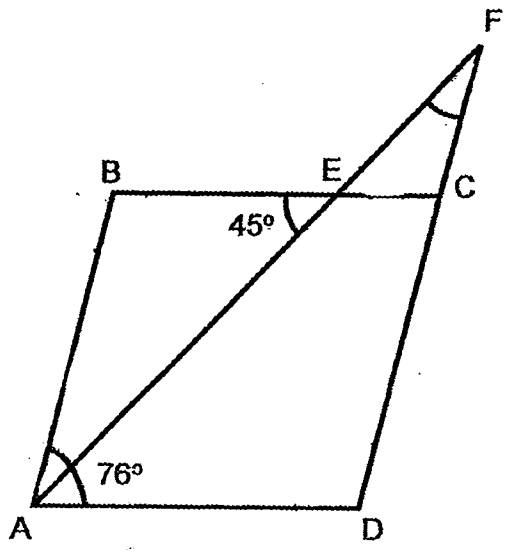
Questions **26** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

26. In the figure below, ABCD is a rhombus. AEF and DCF are straight lines. $\angle BAD = 76^\circ$ and $\angle AEB = 45^\circ$. Find $\angle CFE$.



Ans : _____ °

27. $\frac{2}{3}$ of Elyssa's money is equal to $\frac{5}{7}$ of Gisela's money. Elyssa has \$2 more than Gisela. How much money do they have altogether?

Ans : \$_____

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Do not write in this space.

28. 6 identical cups of detergent can fill $\frac{3}{8}$ of a pail. Every cup is filled to the brim. What is the ratio of the capacity of a cup to the capacity of the pail?

Ans : _____

29. The table below shows the number of goals scored by each player of a soccer club. 60% of the players scored less than 3 goals. How many players scored only 3 goals?

Number of goals scored by each player	Number of players
0	7
1	16
2	10
3	?
4	5

Ans : _____

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30. A machine can peel 3 kg of potatoes in 5 minutes. At this rate, how many kilograms of potatoes can 4 such machines peel in 45 minutes?

Do not write in this space

Ans : _____ kg

END OF PAPER 1

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Name : _____ ( )

Class : Primary 6 _____

Primary 6 Mathematics

2017 Semestral Assessment One

Paper 2

5 May 2017

Paper 1	40
Paper 2	60
Total	100

_____

Parent's /Guardian's Signature

TIME: 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

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ANSWER ALL QUESTIONS.
THE USE OF AN APPROVED CALCULATOR IS EXPECTED, WHERE APPROPRIATE.

This booklet consists of 15 printed pages including the cover page.

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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. The table below shows the number of sticks of satay a stall sold last week.

Day	Number of sticks of satay sold
Monday to Friday	$7m$ per day
Saturday	$3m + 50$
Sunday	$9m - 20$

(a) How many sticks of satay did the stall sell altogether last week? Express your answer in terms of m in the simplest form.

(b) If $m = 40$, find the number of sticks of satay the stall sold last week.

Ans : (a) _____

(b) _____

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2. The ratio of the number of girls to the number of boys in a sports club was 7 : 2 at first. When 63 new members joined the club, the total number of members in the sports club became 1440. How many girls were in the sports club at first?

Do not write in this space.

Ans : _____

3. The usual price of a pair of leather shoes was $180. Spencer bought the shoes at a discount of 25%. In addition, he paid 7% GST on the discounted price. How much was the GST?

Ans : $ _____

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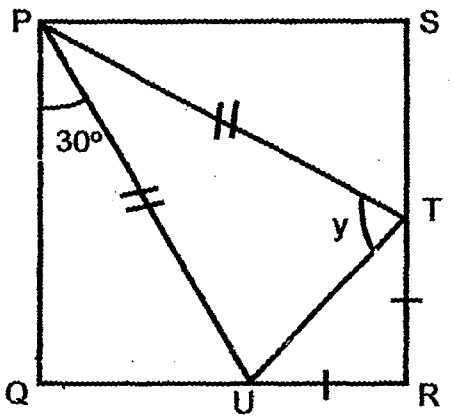
Do not write in this space.

4. In the figure below, PQRS is a square. TR = RU, PU = PT and $\angle QPU = 30°$. Find $\angle y$.



Ans : _____ °

5. The number of participants taking part in a marathon was 15 660 this year. This was a 35% increase from the number of participants taking part last year. How many participants were there last year?

Ans : _____

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

Do not write in this space.

6. Mrs Deepa planned to buy some durians at the market. If she bought 12 kg of durians, she would need another $17. If she bought 8 kg of durians, she would have $9 left. How much money did she bring to the market?

Ans : _____ [3]

7. The points, A, B, C and D lie on a straight line. The ratio of the length of AB to the length of BC is 5 : 2 and the ratio of the length of AC to the length of CD is 3 : 1. Find the ratio of the length of AB to the length of AD.
Leave your answer in the simplest form.

Ans : _____ [3]

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Do not write in this space.

8. Christelle had some buttons. She sewed $\frac{1}{6}$ of them on some cushion covers and $\frac{1}{9}$ of the remaining buttons on some dresses. After buying 378 more buttons, she had as many buttons as she had at first. How many buttons did she sew on the dresses?

Ans : _____ [3]

9. 60% of the members in Dance Club and 70% of the members in Media Club are girls. Both the Dance Club and Media Club have the same number of boys. There are 30 fewer girls in Dance Club than in Media Club. How many members are there in Dance Club?

Ans : _____ [3]

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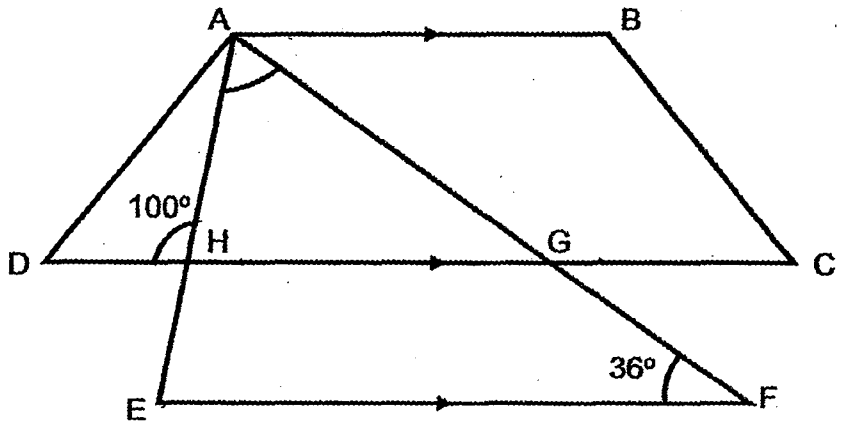
10. The figure below is made up of a trapezium ABCD and a triangle AEF. $\angle AFE = 36^\circ$ and $\angle AHD = 100^\circ$. Find $\angle EAF$.

Do not write in this space.



Ans : _____ [3]

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11. Emerlin bought some cups and plates. She bought 2 more plates than cups. However, she paid $25.20 less for the plates than for the cups. Each cup cost $2 more than each plate. Each plate cost $2.40.

Do not write in this space.

(a) How many cups did Emerlin buy?

(b) What was the total cost of the cups?

Ans : (a) _____ [3]

(b) _____ [1]

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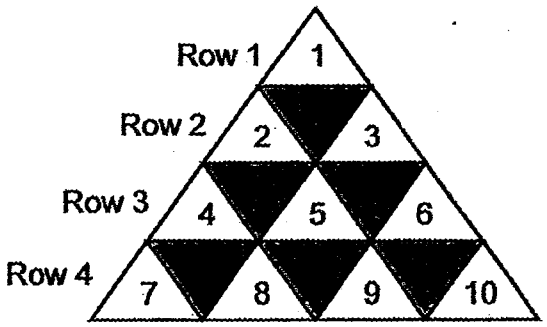
12. Kenneth uses identical white and grey triangles to form the figure that follows a pattern as shown below.

Do not write in this space.



(a) In the whole figure, what is the total number of triangles in Row 10?

(b) There are 299 white and grey triangles altogether in a particular row. What is the total number of white triangles in that row?

(c) In which row will the number 24 be?

Ans : (a) _____ [1]

(b) _____ [2]

(c) Row _____ [1]

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13. At a shop, the price of a printer is 40% of a ~~laptop~~ computer. Mrs Tan bought one printer and one computer each at a discount of 15%. She paid a total of $1904. How much money did Mrs Tan save on the two items because of the discount?

Do not write in this space.

Ans : _____ [4]

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14. Petra, Nicolette and Viviana shared a packet of pearls. Petra received $\frac{3}{5}$ of the pearls and another 18 pearls. Nicolette received $\frac{1}{2}$ of the remaining pearls and another 10 pearls. Viviana received the remaining 6 pearls. How many more pearls did Petra receive than Nicolette?

Do not write in this space.

Ans : _____ [4]

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15. Averine, Brayden and Catrina shared a container of cookies. Averine received $\frac{1}{4}$ of the total share of Brayden and Catrina. Brayden received $\frac{1}{3}$ of the total share of Averine and Catrina. Catrina received 42 more cookies than Brayden. How many cookies did the three children share altogether?

Do not write in this space.

Ans : _____ [4]

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16. Sherrie and Lea went shopping together with a total sum of $324. Sherrie spent twice as much as Lea. The amount Lea had left was $27 more than what she had spent. She had twice as much money left as Sherrie.

Do not write in this space.

(a) How much money did Lea spend?

(b) How much money did Sherrie have at first?

Ans : (a) _____ [3]

(b) _____ [2]

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17. Jillian, Kayson and Seth had the same number of mangoes for sale. Jillian sold $\frac{1}{4}$ of her mangoes and Kayson sold $\frac{1}{3}$ of his mangoes. Seth did not manage to sell any mangoes and the three of them had a total of 638 mangoes left. How many mangoes did Jillian and Kayson sell altogether?

Do not write in this space.

Ans : _____ [5]

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18 Mrs Hiromi wanted 80 kg of mixed nuts. She then mixed 3 types of nuts as shown below.

Do not write in this space.

Types of nuts	Mass of 1 packet of nuts
Hazelnuts	520 g
Cashew nuts	450 g
Macadamia nuts	1.2 kg

The ratio of the number of packets of hazelnuts to the number of packets of cashew nuts to the number of packets of macadamia nuts used was 5 : 4 : 3. How many packets of nuts did she use altogether?

Ans : _____ [5]

End of Paper

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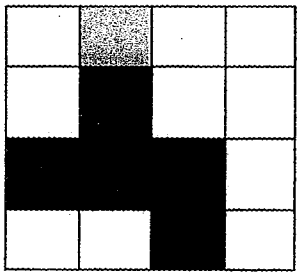
EXAM PAPER 2017 5 May 2017
LEVEL : PRIMARY 6
SCHOOL : CHIJ ST NICHOLAS GIRL'S SCHOOL (PRIMARY)
SUBJECT : MATHEMATICS
TERM : SEMESTRAL ASSESSMENT 1

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

Q16. 1115 Q17. 1.05 Q18. k + 2 Q19. 29 stars Q20. 6 children

Q21. 3 Q22. 120 Q23.  Q24. (3.60 – 3g)

Q25. 225 Q26. 31 Q27. 58 Q28. 1:16 Q29. 17 players Q30. 108

PAPER 2

Q1. 3n + 50 + 9m – 20 + 35m = 47m + 30
47 X 40 = 1880
1880 + 30 = 1910 Answer: a) 47m + 30 b) 1910 satay sticks

Q2. 1440 – 63 = 1377
1377 ÷ 9 = 153
153 X 7 = 1071 Answer: 1071 girls

Q3. 100 – 25 = 75
180 X 7.5 = 135
135 X 0.07 = 9.45 Answer: $9.45

Q4. (180 – 90)/2 = 45
180 – 90 – 30 = 60
180 – 60 – 45 = 75 Answer: 75

Q5. 135/100 = 27/20
27/20 → 15660
1/20 → 580
20/20 → 11600 Answer:11600 participants

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Q6. 4kg → 9 + 17 = 26
1 kg → 6.50
8kg → 52
52 + 9 = 61 Answer: $61

Q7. 5 + 2 = 7
7 X 3 = 21
3 X 5 = 15
3 X 2 = 6
15 + 6 + 7 = 28 Answer: 15:28

Q8. 1 – 1/6 = 5/6
1/9 X 5/6 = 5/54
1/6 + 5/54 = 7/27
7/27 → 378
1/27 → 378/7 = 54
1/54 → 27
5/54 = 135 Answer: 135 buttons

Q9. 70% = 7/10
60% = 3/5
1 – 3/5 = 2/5 = 6/15
1 – 7/10 = 3/10
5u → 30
1u → 6
15u → 90 Answer: 90 members

Q10. 180 – 80 = 100
180 – 36 – 80 = 64 Answer: 64°

Q11. 2 + 2.40 = 4.40
2.4 X 2 = 4.80
25.2 – 2.8 = 20.4
20.4 X 2 = 40.8
40.8 ÷ 2.4 = 17
17 - 2 = 15
15 X 4.4 = $66 Answer: a) 15 cups b) $66

Q12. 10 + 9 = 19
299 – 149 = 150 Answer: a) 19 triangles b) 150 c) Row 7

Q13. 40% X 0.15 = 6%
15/100 = 0.15
40 – 6 = 34
100 – 15 = 85
34 + 85 = 119
1% → 1904/119 = 16
100 + 40 =140
140 X 16 = 2240
2240 – 1904 = 330 Answer: $336

Q14. 10 + 6 = 16
16 X 2 = 32
16 + 10 = 26
32 + 18 = 50
50/2 = 25
25 X 3 = 75
75 + 18 = 93
93 – 26 = 67 Answer: 67 pearls

Q15. 1:4 = 4:16 1:3 = 5:15
16 – 5 = 11
11 – 5 = 6
42/6 = 7
16 + 4 = 20
20 X 7 = 140 Answer: 140 cookies

Q16. 27/2 = 13.50
324 – 27 – 13.50 = 283.50
283.50/9 = 31.50
31.50 X 2 = 63
31.50 X 5 = 157.50
157.50 + 13.50 = 171 Answer: a) $63 b) $171

Q17. 3 X 4 = 12
12 X 3 = 36
36 – 3 – 4 = 29
638/29 = 22
22 X 7 = 154 Answer: 154 mangoes

Q18. 50 X 0.52 = 26
40 X 0.45
36 + 18 + 26 = 80
50 + 40 + 30 = 120 Answer: 120 packets of nuts

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