Name :		()
	-		
Clase : Primary 6			

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6 Mathematics

2016 Semestral Assessment One

Paper 1

Booklet A

10 May 2016

15 questions 20 marks

Total Time for Booklets A and 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.

The use of calculators is NOT allowed.

This booklet consists of <u>8</u> printed pages including the cover page.

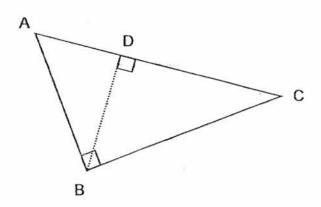
(20 marks)

- Last year, there were 320 989 visitors to a tourist attraction. Express this number to the nearest hundred.
 - (1) 320 000
 - (2) 320 900
 - (3) 321 000
 - (4) 321 900
- 2. What is the value of $86 + 40 \div 2 \times (12 8)$?
 - (1) 91
 - (2) 166
 - (3) 252
 - (4) 748
- 3. Find the value of $\frac{4}{5} \div 6$.
 - (1) $\frac{5}{24}$
 - (2) $\frac{2}{15}$
 - (3) $4\frac{4}{5}$
 - (4) $7\frac{1}{2}$

- 4. Guan Yong bought $8\frac{1}{2}$ kg of rice. He used $2\frac{2}{3}$ kg of the rice. How much rice was left?
 - (1) $11\frac{1}{6}$ kg
 - (2) $6\frac{5}{6}$ kg
 - (3) $6\frac{1}{6}$ kg
 - (4) $5\frac{5}{6}$ kg
- 5. What is the value of 60 ÷ 1200?
 - (1) 0.2
 - (2) 0.5
 - (3) 0.02
 - (4) 0.05
- 6. Which of the following is the same as 3.09 ??
 - (1) 3900 ml
 - (2) 3090 ml
 - (3) 3009 ml
 - (4) 3000 ml

7. There were 35 books on the shelf. Mrs Tan took away 28 books. What percentage of the books on the shelf did Mrs Tan take away?

- (1) 7%
- (2) 20%
- (3) 60%
- (4) 80%
- 8. Which of the following cannot be the height of the Triangle ABC shown below?

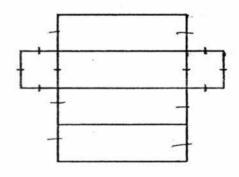


- (1) AB
- (2) BC
- (3) BD
- (4) CD

9. Find the value of $\frac{3x-9}{3}+6$ when x=6.

- (1) 5
- $(2)^{-9}$
- (3) 11
- (4) 15

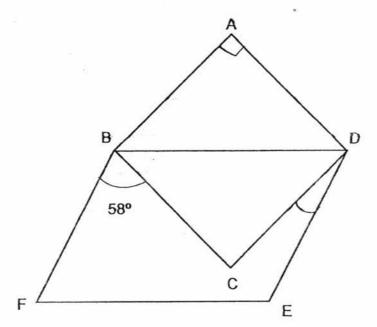
10. What is the name of the solid that can be formed by the following net?



- (1) Cube
- (2) Cuboid
- (3) Cylinder
- (4) Pyramid

11. The ratio of the number of Raja's marbles to the number of Peter's marbles is 3: 4. They have a total of 84 marbles. Raja gave 24 marbles to Peter. What is the new ratio of the number of Raja's marbles to the number of Peter's marbles?

- (1) 1:6
- (2) 1:5
- (3) 1:4
- (4) 1:2
- The figure below, not drawn to scale, shows a square ABCD and a parallelogram BDEF. Find ∠CDE.

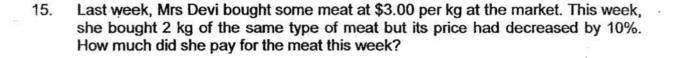


- (1) 16°
- (2) 32°
- $(3) 45^{\circ}$
- (4) 77°

Panny had a piece of ribbon 25 m long. After cutting the ribbon into smaller pieces 13. of $\frac{4}{5}$ m each, she had some ribbon left. How much ribbon did Panny have left?

- (1) 1m
- (2) $\frac{1}{4}$ m
- (3) $\frac{1}{5}$ m
 (4) $\frac{5}{16}$ m
- Vina has 180 stickers. She gave 30% of them to Jasmine and $\frac{2}{3}$ of the remainder 14. to Alan. How many stickers did Alan get?

- (1) 42
- (2) 54
- (3) 84
- (4) 126



- (1) \$2.70
- (2) \$3.30
- (3) \$5.40
- (4) \$6.60

Name :	()
Class: Primary 6		

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6 Mathematics

2016 Semestral Assessment One

Paper 1

Booklet B

10 May 2016

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.
THE USE OF CALCULATORS IS NOT ALLOWED.

This booklet consists of 7 printed pages including the cover page.

16. Find the value of 147×80 .

Ans :

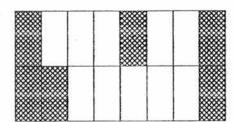
17. Express $3\frac{1}{9}$ as a decimal correct to 2 decimal places.

Ans : _____

18. Find the value of 22 - 0.55.

Ans:

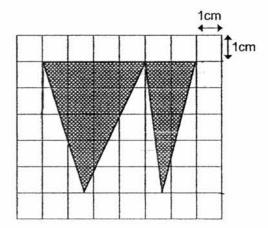
19. What percentage of the figure is shaded?



write in this space.

Ans:

20. What is the total area of the shaded triangles?



Ans: ____cm²

21. []: 15 = 51: 45

What is the missing number in the box?

Ans : _____

22.	Simplify 9y	٠7-	-3y +	- 2 -	5y.

Do not write in this space.

Ans				
7112				

23. Patricia, Queenie and Ryan shared 35 sweets. Patricia received 2 times the number of sweets Queenie received. Ryan received half the number of sweets Queenie received. How many sweets did Patricia receive?

Ans : _____

24. A is 4 times of B. C is $\frac{5}{2}$ of B. How many times of C is A?

Ans : _____

25. The ratio of the length of a rectangle to its breadth 3 : 1. The perimeter of the rectangle is 48 cm. Find the length of the rectangle.

Ans:____cm

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. A machine can pack 4300 sweets in 5 minutes. At this rate, how many sweets can it pack in 1 hour? Round off your answer to the nearest thousand.

Ans:

27. Alison baked a cake and gave half of it to her mother. She ate $\frac{1}{4}$ of the remaining cake. Then she cut the rest of the cake into 2 equal pieces to give to her two daughters. What fraction of the cake did each daughter receive?

Ans : _____

28.	The average height of 3 boys is 150 cm. One of the boys is 160 cm tall. What is the average height of the other 2 boys?	Do not write in this space.
		a a
	Ans : cm	
29.	Yati had a packet of sugar. She used an equal amount of sugar each day. At the end of the 10^{th} day, $\frac{1}{4}$ of the sugar was left. At the end of the 12^{th} day, the	
	amount of sugar left was 120 g. How much sugar did Yati use each day?	

Ans : _____

30.	Siew Mei was given a fixed amount of pocket money each week. In the first week, she spent \$30 and saved the rest. In the 2 nd week, she spent 10% more and her savings decreased by 25%. How much did Siew Mei save in the 2 nd week?	Do not write in this space
		**
	Ans : \$	

END OF PAPER 1

Name :	()
Class: Primary 6	×	

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6 Mathematics

2016 Semestral Assessment One

Paper 2

10 May 2016

Paper 1	40
Paper 2	60
Total	100

Parent's /Guardian's Signature

TIME: 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

DO NOT TURN OVER THIS PAGE UNTIL YOU ARE TOLD TO DO SO. FOLLOW ALL INSTRUCTIONS CAREFULLY. ANSWER ALL QUESTIONS.
THE USE OF AN APPROVED CALCULATOR IS EXPECTED, WHERE APPROPRIATE.

This booklet consists of 16 printed pages including the cover 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. Using each digit below only once, form
 - (a) the smallest multiple of 6.
 - (b) the number closest to 7000.

5

6

7

0

Ans : (a) _____

(b) _____

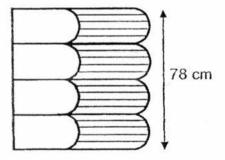
2. $\frac{1}{5}$ of the balls in a basket are yellow and the rest are red and blue. The number of red balls is $\frac{3}{5}$ the number of blue balls. What is the ratio of the number of yellow balls to the number of red balls to the number of blue balls?

Ans:

3. Maria was told to use only 2 different colours to colour the design of a class T-shirt. She was given 4 colours, red, blue, green and yellow to choose from. How many different two-colour combinations could she use in her design? Do not write in this space.

Ans:

4. Four identical dictionaries were stacked on top of another as shown below to form a height of 78 cm. What is the height of 234 such dictionaries stacked in the same way?



Ans ·	m	

5.	From January to March last year, the average number of customers dining at a restaurant was 3144 per month. The number of customers in January was 26 more than the number of customers in February. The total number of customers in January and February was the same as the number of customers in March. How many customers were there in February?	Do not write in this space
		2)
	Ans :	

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. The signs below show the parking charges at a public car park.

Day and Night Parking

50¢ 7.00 a.m. to 10.30 p.m. Everyday

(Including Sundays & Public Holidays)

Overnight Parking

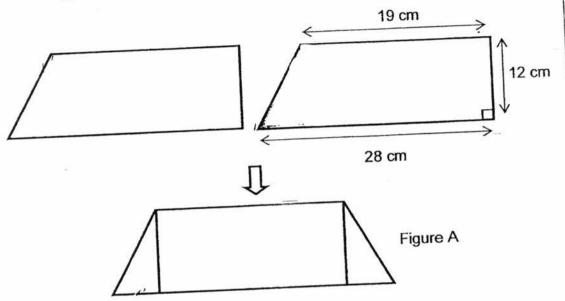
\$4.00 per night = 10.30 p.m. to 7.00 a.m. Everyday (Including Sundays & Public Holidays)

Mr Nathan parked his car along this road from 3.00 p.m. on Saturday till 10.00 a.m. the following day. How much did he pay for the parking?

	1	1 1	
Ans:_	[3]		

 Figure A below, not drawn to scale, is made up of two identical trapeziums overlapping each other as shown. Find the area of the Figure A.

Do not write in this space.



Ans : _____[3]

8.	Gerald paid \$123.05 for a kettle after the 7% GST. A week later, there was a 15% discount on the usual price of the same kettle. How much was the discount?	Do not write in this space
	Ans :[3]	
9.	Jia Hui had $(13w + 2)$ stickers. Amanda had $4w$ fewer stickers than Jia Hui. Kathy had $(10w + 3)$ more stickers than Amanda. Express the total number of stickers the three girls had in terms of w in the simplest form.	
	Anc : [3]	

10. Three family members shared the cost of buying a flat equally. Adam used $\frac{1}{2}$ of his savings, Bill used $\frac{6}{7}$ of his savings and Carl used $\frac{3}{4}$ of his savings. Bill and Carl had \$44 820 left after paying for the flat. How much did the flat cost?

Do not write in this space.

-Ans: [3]

11.	Primary 6A and Primary 6B have a total of 87 children. There are an equal number of girls in both classes. The ratio of the number of girls to the number of boys in Primary 6A is 5:2. The ratio of the number of girls to the number of boys in Primary 6B is 2:1.	Do not write in this space
	(a) How many girls are there in Primary 6A?	
	(b) How many more girls than boys are there in all?	
	Ano : (a) [2]	

(b)_____[2]

12. Janet made some paper flowers to sell. $\frac{1}{4}$ of them were roses and the rest were lilies. After selling $\frac{2}{3}$ of the roses and 190 lilies, she had $\frac{1}{6}$ of the paper flowers left. How many paper flowers did Janet make?

Do not write in this space.

Ans : ______ [4]

Mr Lim earned a monthly salary of \$4200, which was 20% more than the Do not write 13. in this space. monthly salary of Mr Tang. When Mr Lim's monthly salary was increased, he earned \$910 more than Mr Tang. What was the percentage increase in Mr Lim's salary?

Ans:

[4]

Carol spent $\frac{1}{4}$ of her salary on accommodation and $\frac{1}{8}$ of it on a bag. Of the in this space. 14. rest of the money, she gave $\frac{1}{4}$ of it to her parents and spent \$450 on transport. Then she saved the remaining \$1350.

(a) What fraction of Carol's salary did she give to her parents?

(b) What was her salary?

Ans: (a)	 [1]
1413.	·)	 L	

15. Hillary was cutting out some paper hearts to be sold for charity. Three paper hearts could be cut from every piece of coloured paper. For every 19 pieces of coloured paper used, 2 paper hearts were damaged. She sold all the pieces of undamaged paper hearts at 50¢ each. She collected a total of \$385.

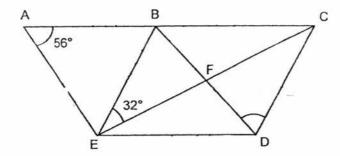
Do not write in this space.

- (a) How many paper hearts were sold?
- (b) How many pieces of coloured paper did Hillary use?

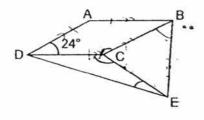
Ans : (a)	[1]
(b)	[3]

16. (a) In the figure below, not drawn to scale, ABDE is a rhombus and EBCD is a parallelogram. EFC is a straight line. ∠EAB = 56° and ∠BEC = 32°. Find ∠FDC.

Do not write in this space.



(b) In the figure below, not drawn to scale, ABCD is a rhombus and BCE is an equilateral triangle. Find \angle CED.



Ans : (a) _____ [2]

(b) _____[3]

17.	A container contained 40% more water 20% of the water from the container to the water from the pail. In the end, the container than the pail. How much water	the pail. Then she used up 25% of nere was 900 ml more water in the	Do not write in this space
		===	
	la .		
		Ans :[5]	

During a camp, Mrs Han ordered an equal number of cakes and buns for breakfast from a bakery. The cost of a cake was \$1.20 and it was 3 times the cost of a bun. $\frac{3}{5}$ of the cakes and $\frac{2}{5}$ of the buns were eaten and that cost \$264.

Do not write in this space.

- (a) How many cakes were eaten?
- (b) How much did Mrs Han paid for all the cakes and buns?

Ans : (a)[3]	-
(b)[2]	
End of Paper	

YEAR

: 2016

LEVEL

: PRIMARY 6

SCHOOL

: CHIJ ST NICHOLAS GIRLS'

SUBJECT

MATHEMATICS

TERM

: SA1

Paper 1

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

Q16 11760

Q17
$$3\frac{1}{9} = \frac{28}{9} \approx 3.111 \approx \underline{3.11}$$

Q18 21.45

Q19 Total units
$$\rightarrow$$
 16
Shaded \rightarrow 6
 $\frac{6}{16} \times 100 \rightarrow \frac{75}{2} \Rightarrow \underline{37.5 \%}$

Q20 6 x 5 x
$$\frac{1}{2}$$
 \Rightarrow $\underline{15 \text{ cm}^2}$

Q21 17

Q22
$$9y + 7 - 3y + 2 - 5y \rightarrow 9y - 3y - 5y + 7 + 2 \Rightarrow (y + 9)$$

Q23 P: Q: R
4 : 2 : 1

$$4u + 2u + 1u \rightarrow 7u$$

 $35 \times \frac{4}{7} \Rightarrow 20 \text{ sweets}$

Q24 A : B : C
8 : 2 : 5
$$4 \times 2 \to 8$$

 $\frac{8}{5} \Rightarrow 1\frac{3}{5}$

Q25 L : B
3 : 1

$$3u + 1u \rightarrow 4u$$

 $4u \times 2 \rightarrow 8u$
 $48 \times \frac{3}{8} \Rightarrow \underline{18 \text{ cm}}$

Q26
$$1h = 60min$$

 $4300 \times \frac{60}{5} = 51600 \approx \underline{52000}$

Q27
$$\frac{1}{2} \times \frac{3}{4} \times \frac{1}{2} \Rightarrow \frac{3}{16}$$

Q28 150 x 3 = 450
450 - 160 = 290
290 ÷ 2
$$\rightarrow \frac{290}{2} \rightarrow \frac{145}{1} \Rightarrow \underline{145 \text{ cm}}$$

Q29 4 days
$$\rightarrow$$
 120 x 3 = 360
1 day \rightarrow 360 \div 4 \Rightarrow 90 g

Q30
$$30 \times \frac{110}{100} = 33$$

 $33 - 30 = 3$
 $100 - 25 = 75$
 $25\% \rightarrow 3$
 $75\% \rightarrow 3 \times 3 \Rightarrow 9

Paper 2

Q4
$$4u \rightarrow 78$$

 $1u \rightarrow 78 \div 4 = 19.5$
 $234u \rightarrow 19.5 \times 234 = 4563$
 $4563 \text{ cm} \Rightarrow 45.63 \text{ m}$

Q5
$$3144 \times 3 = 9432$$

 $4u \rightarrow 9432 - 26 - 26 = 9380$
 $1u \rightarrow 9380 \div 4 \Rightarrow 2345 \text{ customers}$

Q7
$$28 \times 12 \Rightarrow 336 \text{ cm}^2$$

Q8 100 + 7 = 107
123.05 x
$$\frac{100}{107}$$
 = 115
115 x $\frac{15}{100}$ \Rightarrow $\frac{$17.25}{}$

Q9 Jia Hui
$$\rightarrow$$
 13w + 2
Amanda \rightarrow 13w + 2 - 4w = 13w - 4w + 2 \rightarrow 9w + 2
Kathy \rightarrow 9w + 2 + 10w + 3 = 9w + 10w + 2 + 3 \rightarrow 19w + 5
Total \rightarrow 13w + 2 + 9w + 2 + 19w + 5 = 13w + 9w + 19w + 2 + 2 + 5 \Rightarrow (41w + 9)

Q10
$$3u \rightarrow 44820$$

 $6u \rightarrow 44820 \times 2 = 89640$
 $89640 \times 3 \Rightarrow 268920

Q11a 6A 6B
5:2 2:1
10:4 10:5
6AB:1G:6BB
4:10:5
4u+10u+10u+5u=29

$$87 \times \frac{10}{29} \Rightarrow 30 \text{ girls}$$

Q11b
$$10u + 10u = 20$$

 $4u + 5u = 9u$
 $20u - 9u = 11u$
 $87 \times \frac{11}{29} \Rightarrow 33 \text{ more girls}$

Q12
$$\frac{1}{6} \times \frac{2}{3} = \frac{1}{6} \text{ (roses sold)}$$

$$1 - \frac{1}{6} - \frac{1}{6} \rightarrow \frac{4}{6} \rightarrow \frac{2}{3}$$

$$4u \rightarrow 190$$

$$1u \rightarrow 190 \div 4 = 47\frac{1}{2}$$

$$6u \rightarrow 47\frac{1}{2} \times 6 \Rightarrow 285 \text{ paper flowers}$$

Q13 Mr Tang
$$\rightarrow 4200 \text{ x} \frac{100}{120} = 3500$$

Mr Lim $\rightarrow 3500 + 910 = 4410$
 $4410 - 4200 = 210$
 $\frac{210}{4200} \times 100 \Rightarrow 5\%$

Q14a

Salary

$$\frac{2}{8}$$
 (accommodation)

Salary

 $\frac{1}{8}$ (bag)

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

 $\frac{1}{4}$ (transport + saved)

 $\frac{1}{4}$ $x \frac{5}{8} \Rightarrow \frac{5}{32}$

Q14b
$$1350 + 450 \rightarrow 1800$$

 $1800 \times \frac{4}{3} \rightarrow 2400$
 $2400 \times \frac{8}{5} \Rightarrow 3840

Q15a
$$385 \div 0.50 \Rightarrow 770$$
 paper hearts sold

Q15b
$$19 \times 3 = 57$$

 $57 - 2 = 55$
 $770 \div 55 = 14$
 $14 \times 19 \Rightarrow 266 \text{ pieces}$

Q16a
$$\angle EAB = \angle BDE = 56^{\circ}$$

 $\angle FBC = \angle EAB = 56^{\circ}$
 $\angle EBD = (180^{\circ} - 56^{\circ}) \div 2 \rightarrow 62^{\circ}$
 $\angle EDC = \angle EBC = 62^{\circ} + 56^{\circ} \rightarrow 118^{\circ}$
 $\angle FDC = 118^{\circ} - 56^{\circ} \Rightarrow 62^{\circ}$

Q16b
$$\angle BCE = 180^{\circ} \div 3 \rightarrow 60^{\circ}$$

 $\angle BCD = 180^{\circ} - 24^{\circ} \rightarrow 156^{\circ}$
 $\angle DCE = 360^{\circ} - (156^{\circ} + 60^{\circ}) \rightarrow 360^{\circ} - 216^{\circ} \rightarrow 144^{\circ}$
 $\angle CED = (180^{\circ} - 144^{\circ}) \div 2 \rightarrow 36^{\circ} \div 2 \Rightarrow 18^{\circ}$

Q17
$$\frac{20}{100} \times \frac{140}{1} = 28$$

P $\rightarrow 100 \% + 28 \% = 128 \%$
Water left in P $\rightarrow \frac{3}{4} \times \frac{128}{1} = 96$
 $112 - 96 = 16$
 $16 \% \rightarrow 900$
 $1 \% \rightarrow 900 \div 16 = 56.25$
 $140 \% \rightarrow 56.25 \times 140 \Rightarrow 7875 \text{ ml}$

Q18a Cost cake
$$\rightarrow$$
 1.20 & cost bun \rightarrow 1.20 ÷ 3 = 0.40
1.20 x 3 = 3.60
0.40 x 2 = 0.80
3.60 + 0.80 = 4.40
264 ÷ 4.40 = 60
60 x 3 \Rightarrow 180 cakes

Q18b
$$60 \times 5 = 300$$

 $300 \times 1.20 = 360$
 $300 \times 0.40 = 120$
 $120 + 360 \Rightarrow 480

4