

Name : \_\_\_\_\_ ( )

Class : Primary 5 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



Primary 5

2013 Semestral Assessment Two

Mathematics

Paper 1

Booklet A

28 October 2013

Total Time for Booklets A and B : 50 minutes

**INSTRUCTIONS TO CANDIDATES**

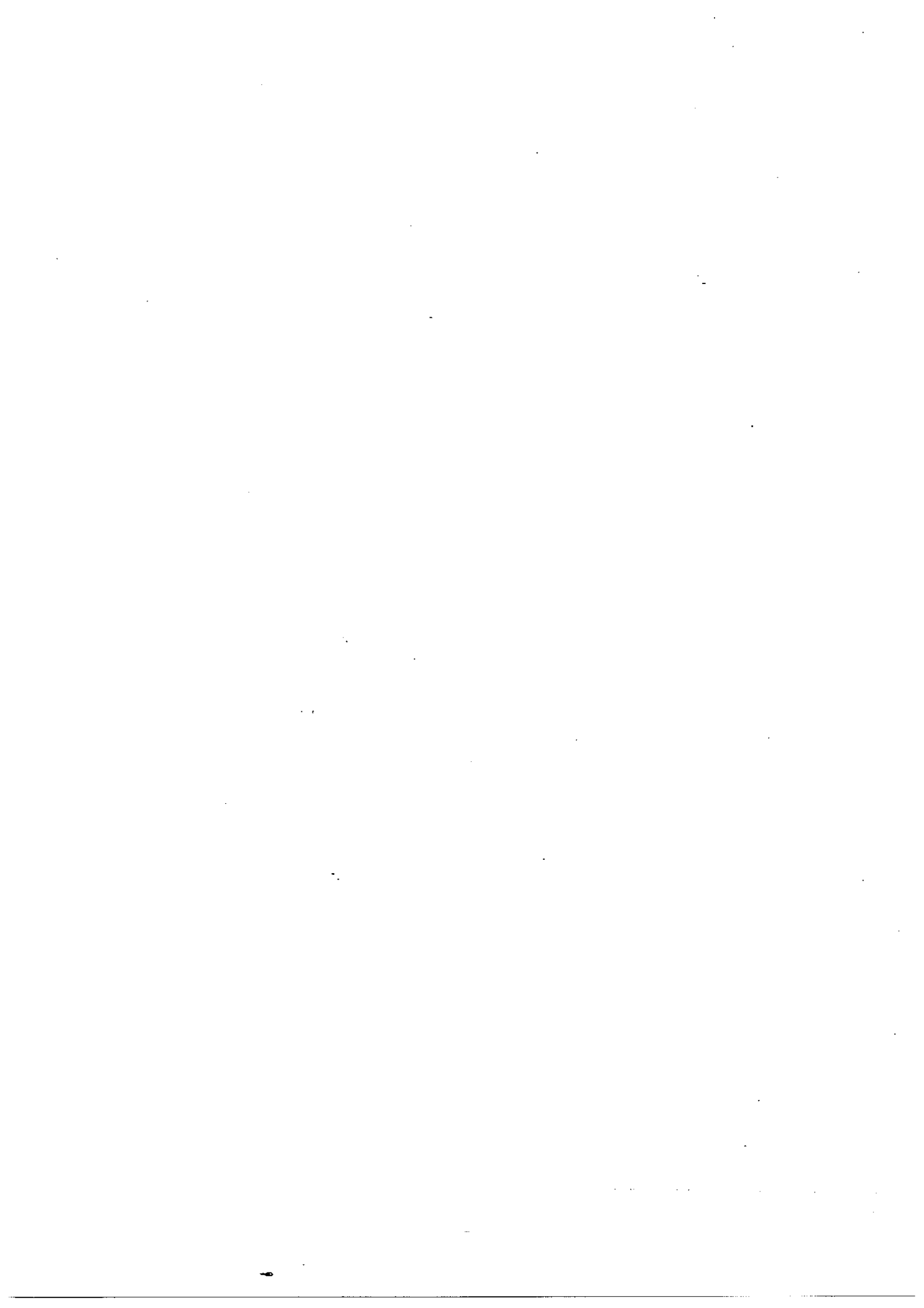
Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

The use of calculators is NOT allowed.

*This booklet consists of 8 printed pages including the cover page.*



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)

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1. Round off 297 538 to the nearest ten thousand.

1) 290 000

2) 298 000

3) 300 000

4) 390 000

2. Find the value of  $760\,000 \div 400$ .

1) 190

2) 1900

3) 19 000

4) 190 000

3. In a group of pupils,  $\frac{2}{5}$  of them are girls. What percentage of the pupils are boys?

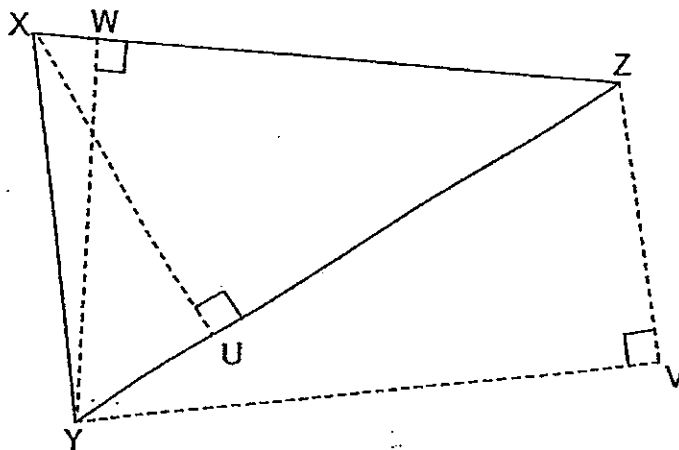
1) 20%

2) 30%

3) 40%

4) 60%

4. Given that the base of Triangle XYZ is XZ, what is its height?



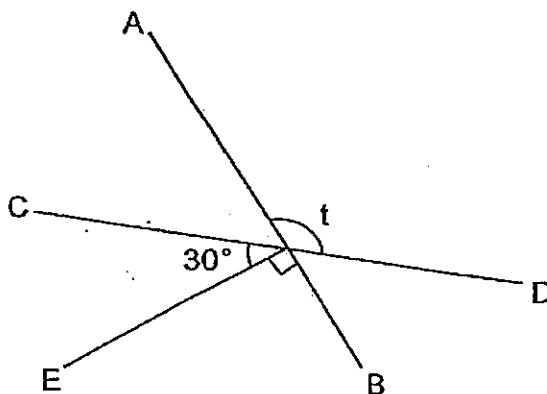
- 1) XY
  - 2) WY
  - 3) UX
  - 4) VZ
5. Mrs Bong spent  $\frac{1}{5}$  of her salary on transport and  $\frac{1}{4}$  of the remainder on food. What fraction of her salary was left?

- 1)  $\frac{1}{5}$
- 2)  $\frac{9}{20}$
- 3)  $\frac{11}{20}$
- 4)  $\frac{3}{5}$

6. There are 18 red buttons, 24 blue buttons and 36 green buttons in a box. What is the ratio of the number of blue buttons to the total number of red and green buttons in the box?

- 1) 2 : 3
- 2) 4 : 3
- 3) 4 : 9
- 4) 4 : 13

7. The figure below is not drawn to scale. AB and CD are straight lines. Find  $\angle t$ .



- 1)  $30^\circ$
- 2)  $60^\circ$
- 3)  $120^\circ$
- 4)  $130^\circ$

8. There was 4 l of milk in a bottle at first. Mrs. Kang used  $\frac{3}{10}$  of it to bake some cupcakes. How much milk was left?

- 1) 0.12 l
- 2) 0.28 l
- 3) 1.2 l
- 4) 2.8 l

9.  $\frac{2}{3}$  of a cake was distributed equally among 4 girls. What fraction of the whole cake did each girl receive?

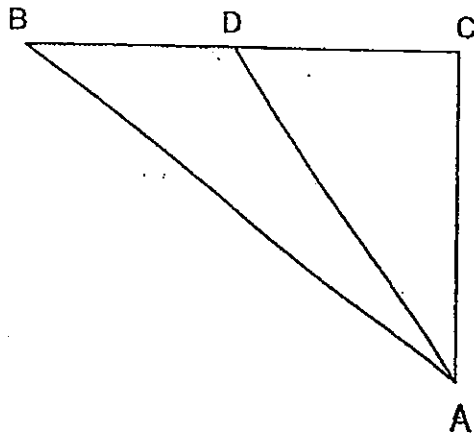
1)  $\frac{1}{12}$

2)  $\frac{1}{6}$

3)  $\frac{1}{3}$

4)  $\frac{3}{8}$

10. The figure below is not drawn to scale. ABC is a right-angled triangle and  $BD = DC$ . Triangle ABD has an area of  $30 \text{ cm}^2$ . What is the area of Triangle ABC?



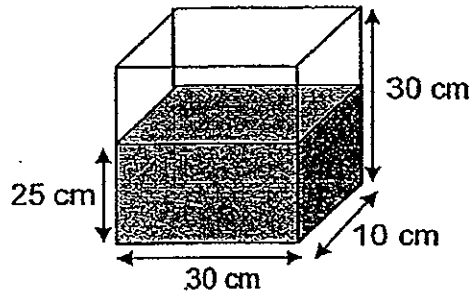
1)  $10 \text{ cm}^2$

2)  $15 \text{ cm}^2$

3)  $30 \text{ cm}^2$

4)  $60 \text{ cm}^2$

11. The figure below shows a container filled with some water. How much more water has to be poured into the container to fill it up completely without overflowing?

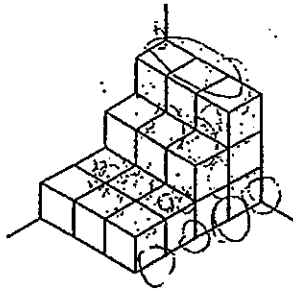


- 1)  $1500 \text{ cm}^3$
  - 2)  $4500 \text{ cm}^3$
  - 3)  $7500 \text{ cm}^3$
  - 4)  $9000 \text{ cm}^3$
12. Aishah had a piece of ribbon. She cut the entire piece of ribbon into 80 smaller pieces, each  $\frac{1}{4}$  m long. How many pieces would she get if she were to cut the original piece of ribbon into smaller pieces measuring 5 cm each?
- 1) 4000
  - 2) 400
  - 3) 40
  - 4) 4

13. The average mass of 3 boxes, A, B and C, is 10 kg. Box A and Box B have the same mass. The mass of Box C is half the mass of Box A. What is the mass of Box A?

- 1) 6 kg
- 2) 10 kg
- 3) 12 kg
- 4) 30 kg

14. Mindy is trying to form a cube using the unit cubes as shown below. How many more unit cubes does she need to form the smallest possible cube?



- 1) 21
- 2) 28
- 3) 43
- 4) 64



15. The table below shows the rental charges for hiring a canoe.

Rental Charges	
First hour	\$18
Every additional $\frac{1}{2}$ h or part thereof	\$6.50

Ray hired a canoe from 10.15 a.m. to 1.00 p.m. How much did he pay?

- 1) \$24.50
- 2) \$31.00
- 3) \$37.50
- 4) \$44.00

**\*\* END OF BOOKLET A\*\***

Name : \_\_\_\_\_ ( )

Class : Primary 5 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 5**

**2013 Semestral Assessment Two**

**Mathematics**

**Paper 1**

**Booklet B**

**28 October 2013**

Booklet A	20
Booklet B	20
Total (Paper 1)	40

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 6 printed pages including the cover page.**

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

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16. Write eight million, thirty-four thousand and five in numerals.

Ans: \_\_\_\_\_

17. What is the value of  $40 - (24 \div 4 \times 3) + 2 \times 22$  ?

Ans: \_\_\_\_\_

18. Express 3 km 6 m in km. Leave your answer as a decimal.

Ans: \_\_\_\_\_ km



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19. A bottle contains 300 ml of sparkling juice. Ken needs 1.9 l of sparkling juice. What is the smallest number of bottles of sparkling juice he needs to buy?

Ans : \_\_\_\_\_

20. What is the missing number in the box?

$$40 : 16 = \boxed{?} : 12$$

Ans : \_\_\_\_\_

21. Martin wants to buy a television set. The television set costs \$3500 excluding 7% GST. How much GST does Martin have to pay?

Ans : \$ \_\_\_\_\_

22. Samy bought 50 pens at \$0.45 each. How much did he pay for the pens?

Ans : \$ \_\_\_\_\_

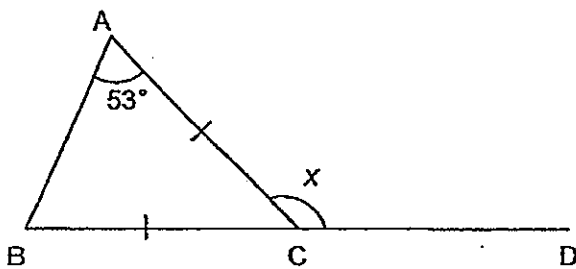


23. Six teams took part in a netball game. Each team played one game against each of the rest of the teams. How many games were played altogether?

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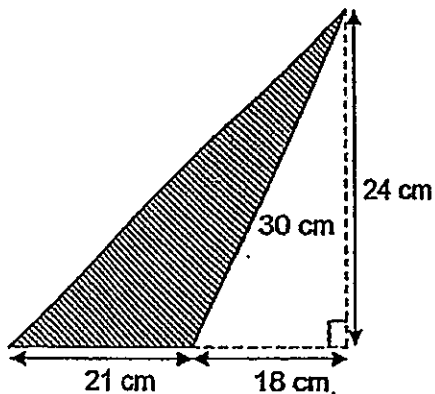
Ans : \_\_\_\_\_

24. The figure below is not drawn to scale. BD is a straight line. Find  $\angle x$ .



Ans : \_\_\_\_\_

25. The figure below is not drawn to scale. Find the area of the shaded triangle.



Ans : \_\_\_\_\_  $\text{cm}^2$



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)

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26. Abby's mass is  $38\frac{1}{2}$  kg. She is  $2\frac{3}{4}$  kg heavier than Carol. What is the total mass of Abby and Carol?

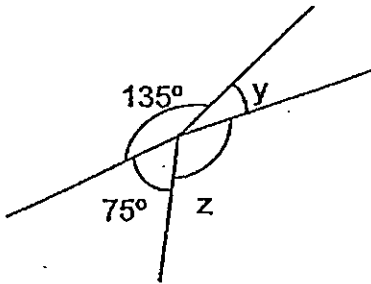
Ans : \_\_\_\_\_ kg

27. Rena and Lily have some stickers in the ratio 5 : 1. How many stickers must Rena give Lily so that each of them has 72 stickers?

Ans : \_\_\_\_\_



28. The figure below is not drawn to scale.  $\angle z$  is twice the size of  $\angle y$ . Find  $\angle y$ .



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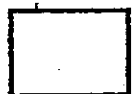
Ans : \_\_\_\_\_ °

29. A rectangular tank, 50 cm long and 40 cm wide, is filled with water to a depth of 8 cm. The water in the tank is just enough to fill 5 identical pails completely. How much water can 1 pail hold?

Ans : \_\_\_\_\_ ml

30. The average mass of 3 men is 73.9 kg. The mass of the first two men is 84.5 kg and 58.2 kg. What is the mass of the third man?

Ans : \_\_\_\_\_ kg



Name : \_\_\_\_\_ ( )

Class : Primary 5 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 5**

**2013 Semestral Assessment Two**

**Mathematics**

**Paper 2**

**28 October 2013**

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 14 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)

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1. Eileen has just enough money to buy either 6 peaches or 12 apples. If she buys 8 apples, how many peaches can she buy with the remaining amount of money?

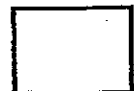
Ans : \_\_\_\_\_

2. Tom took 6 h 45 minutes to complete 5 sets of revision papers. What is the average time he took to complete 1 set of revision paper?

Ans : \_\_\_\_\_ h \_\_\_\_\_ min

3. May's age is  $\frac{1}{7}$  of her mother's age now. Her mother will be 50 years old in 8 years' time. How old will May be in 10 years' time?

Ans : \_\_\_\_\_ yrs old

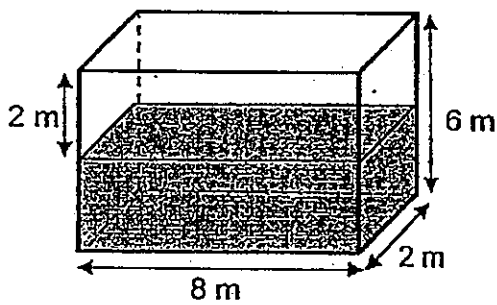


4. For every 5 men in a park, there were 7 women. For every 7 children in the park, there were 3 women. Find the ratio of the number of children to the number of women to the number of men in the park.

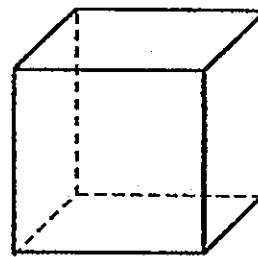
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Ans : \_\_\_\_\_

5. Container A is filled with some water. The water in Container A is just enough to fill Container B, a cubical tank, to the brim. What is the length of Container B?

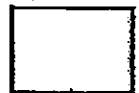


Container A



Container B

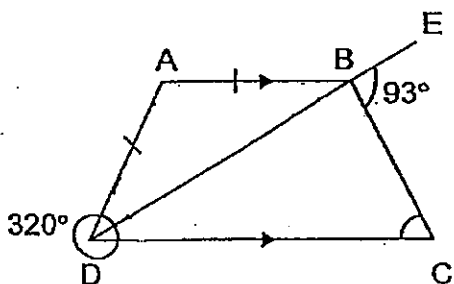
Ans : \_\_\_\_\_ m.



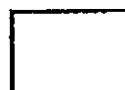
For questions 6 to 18, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (50 marks)

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6. The figure below is not drawn to scale. ABCD is a trapezium and DBE is a straight line. Find  $\angle BCD$ .



Ans : \_\_\_\_\_ [3m]



7. Dolly scored an average of 76.25 marks for English and Chinese. She scored an average of 88.75 marks for English and Mathematics. How many more marks did she score in Mathematics than in Chinese?

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Ans : \_\_\_\_\_ [3m]

8. Mrs Neo bought 5 kg of mangoes and 9 kg of cherries at \$162.50. 200 g of mangoes cost \$3.80. How much would half a kilogram of cherries cost?

Ans : \_\_\_\_\_ [3m]



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9. On Monday, Susan read  $\frac{1}{6}$  of a book. On Tuesday, she read 29 pages of the book. On Wednesday, she read  $\frac{1}{3}$  of the remaining book, leaving 24 pages of the book unread. How many pages of the book did Susan read on Monday?

Ans : \_\_\_\_\_ [3m]

10. Winnie is paid \$2.40 for each hand puppet made. However, for each hand puppet made unsatisfactorily, her employer will deduct \$3.50 from her salary. Given that she was paid \$205.90 for making 96 hand puppets satisfactorily, how many unsatisfactory hand puppets did she make?

Ans : \_\_\_\_\_ [3m]



11. Yani, Alison and Uma shared a packet of marbles. The ratio of the number of marbles Yani had to the number of marbles Uma had was 3 : 4. The ratio of the number of marbles Uma had to the number of marbles Alison had was 2 : 3.

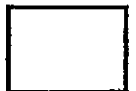
(a) Given that Alison had 126 marbles, how many marbles did Yani have?

(b) Yani lost  $\frac{1}{9}$  of her marbles. What is the new ratio of the number of marbles Yani had to the number of marbles Alison had?

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Ans : a) \_\_\_\_\_ [2m]

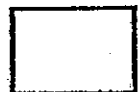
b) \_\_\_\_\_ [2m]



12. There were a total of 320 pupils in the hall. 40% of the pupils were boys and the rest were girls. Some girls left the hall. As a result, the number of remaining boys was  $\frac{4}{5}$  of the total number of pupils left behind in the hall.
- How many girls left the hall?

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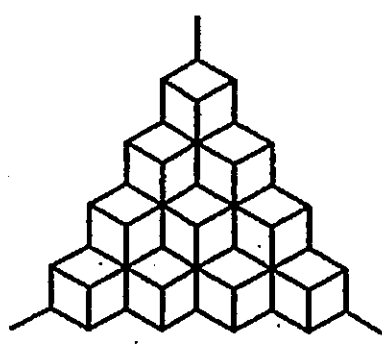
Ans : \_\_\_\_\_ [4m]



13. Some cubes of edge 2 cm are stacked up in 4 layers according to the pattern shown in the figure below.

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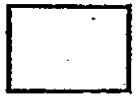
- (a) Find the total volume of all the cubes used to stack up the 4 layers.
- (b) Based on the same pattern, how many more cubes must be used to form 8 layers?



Layer	Number of cubes
1	1
2	3
3	6
4	10

Ans : a) \_\_\_\_\_ [2m]

b) \_\_\_\_\_ [2m]





14. Mr Ang wanted to top up his car to full tank with \$88 worth of petrol. Petrol Station A was offering a 12% discount while Petrol Station B was offering another cash discount of \$2 after a 10% discount.

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- (a) Which petrol station offered a better discount?
- (b) Find the difference in the discounts offered by the 2 petrol stations.

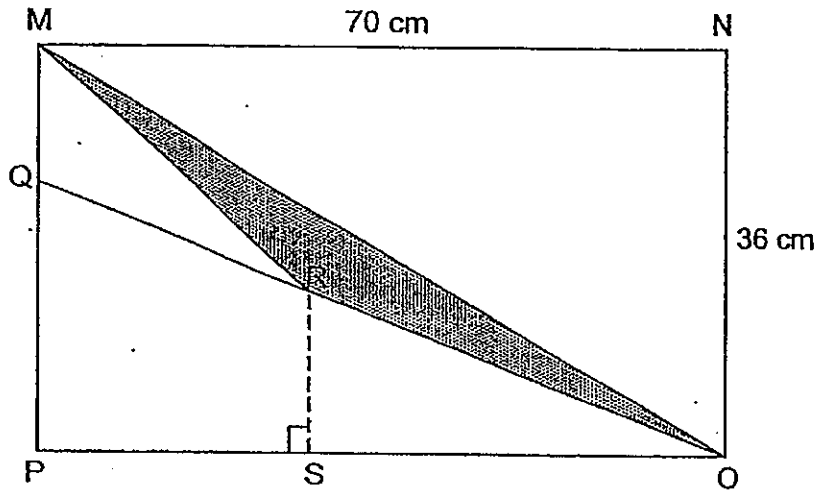
Ans : a) Petrol Station \_\_\_\_\_ [3m]

b) \_\_\_\_\_ [1m]



15. The figure below, not drawn to scale, shows a rectangle MNOP. QRO is a straight line and  $PQ = PS$ . The ratio of MQ to PQ is 1 : 2. Find the area of the shaded part.

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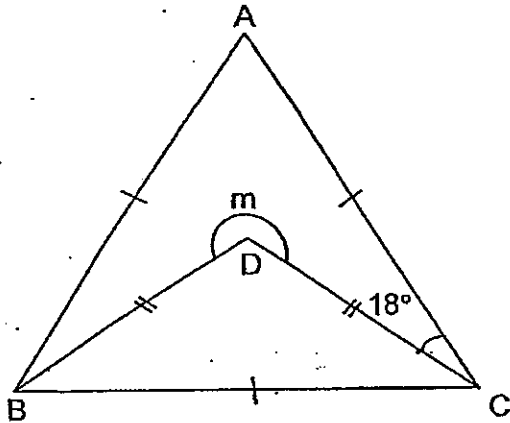
Ans : \_\_\_\_\_ [4m]



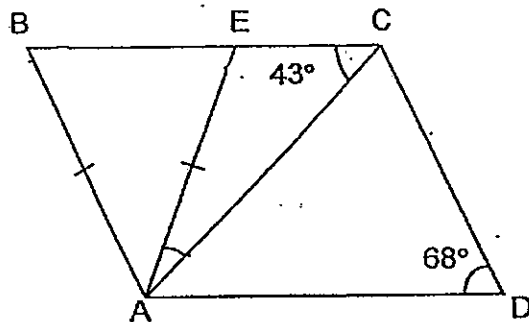
16. The figures below are not drawn to scale.

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(a) ABC is an equilateral triangle and BCD is an isosceles triangle. Find  $\angle m$ .

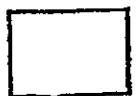


(b) ABCD is a parallelogram. AB = AE. Find  $\angle CAE$ .



Ans : a) \_\_\_\_\_ [3m]

b) \_\_\_\_\_ [2m]



17. A tank, 50 cm long, 45 cm wide and 38 cm high, was  $\frac{1}{4}$  filled with water at first. Water from a tap flows into the tank at 2.5 l per minute.

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- (a) How much water is in the tank after 5 minutes?
- (b) 15 l of syrup was added to the water in the tank. What percentage of the resulting mixture was syrup? Round off your answer to 2 decimal places.

Ans : a) \_\_\_\_\_ [3m]

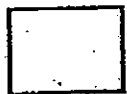
b) \_\_\_\_\_ [2m]



18. The number of beads in Box A is  $\frac{1}{2}$  the number of beads in Box B. All the beads in Box A are green beads. Box B contains only green and yellow beads. In Box B, the number of green beads is  $\frac{3}{4}$  the number of yellow beads. There are 10 more green beads in Box A than in Box B. What is the total number of beads in Box A and Box B?

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Ans : \_\_\_\_\_ [5m]



**\*\* END OF PAPER \*\***



# Answer Key

**EXAM PAPER 2013**

**SCHOOL : CHIJ**

**SUBJECT : PRIMARY 5 MATHEMATICS**

**TERM : SA2**

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

16)8034005

17)66

18)3.006

19)7

20)30

21)\$245

22)\$22.50

23)15

24)106°

25)252cm<sup>2</sup>

26)74¼kg

27)48

28)50°

29)3200ml

30)79kg

## Paper 2

1)12 apples→6 peaches

1p→2

$$12 - 8 = 4$$

$$4 \div 2 = 2$$

2)6h 45min→405 min

$$405 \div 5 = 81 \text{ min}$$

81 min→1 h 21 min

3)50 - 8 = 42

$$42 \div 7 = 6$$

$$6 + 10 = 16$$

4) C : W : M  
 7 : 3 :  
 7 : 5  
 45 : 21 : 15

5)  $6m - 2m = 4m$   
 $4m \times 8m \times 2m = 64m^3$

$\sqrt[3]{64} = 4m$

6)  $180^\circ - 93^\circ = 87^\circ$   
 $360^\circ - 320^\circ = 40^\circ$   
 $180^\circ - 40^\circ - 40^\circ = 100^\circ$   
 $180^\circ - 40^\circ - 87^\circ = 53^\circ$

7)  $76.25 \times 2 = 152.50$   
 $88.75 \times 2 = 177.50$   
 $177.50 - 152.50 = 25$

8)  $5kg \rightarrow 5000g$   
 $5000g \div 200g = 25$   
 $25 \times \$3.80 = \$95$   
 $\$162.50 - \$95 = \$67.50$   
 $9 \times 2 = 18$   
 $\$67.50 \div 18 = \$3.75$

9)  $24 \div 2 \times 3 = 36$   
 $36 + 29 = 65$   
 $65 \div 5 = 13 \text{ pages}$

10)  $96 \times \$2.40 = \$230.40$   
 $\$230.40 - \$205.90 = \$24.50$   
 $\$24.50 \div \$3.50 = 7$

11) a) Y : U : A  
 3 : 4  
 2 : 3  
 3 : 4 : 6

$126 \div 6 = 21$   
 $21 \times 3 = 63$

b) Y : U : A  
 134  $\rightarrow$  3 : 4 : 6  
 after  $\rightarrow$  56 : 24 : 126  
 after  $\rightarrow$  28 : 24 : 63

$63 \times 8/9 = 56$   
 $4 \times 6 = 24$   
 Y : A  
 28 : 63  
 4 : 9



12)  $320 \div 10 = 32$

$6 - 1 = 5$

$32 \times 5 = 160$

13)a)  $1 + 3 + 6 + 10 = 20$

$2 \times 2 \times 2 = 8$

$8 \times 20 = 160\text{cm}^3$

b) 100

14)a)  $A \rightarrow \$88 \times 88\% = \$77.44$

$\$88 \times 90\% = \$79.20$

$\$79.20 - \$2 = \$77.20$

b)  $\$77.44 - \$77.20 = \$0.24$

15)  $36\text{cm} \div 3 = 12\text{cm}$

$12\text{cm} \times 70\text{cm} \times \frac{1}{2} = 420\text{cm}^2$

$12\text{cm} \times 2 = 24\text{cm}$

$24\text{cm} \times 12\text{cm} \times \frac{1}{2} = 144\text{cm}^2$

$420\text{cm}^2 - 144\text{cm}^2 = 276\text{cm}^2$

16)a)  $60^\circ - 18^\circ = 42^\circ$

$180^\circ - 42^\circ - 42^\circ = 96^\circ$

$360^\circ - 96^\circ = 264^\circ$

b)  $180^\circ - 68^\circ = 112^\circ$

$68^\circ - 43^\circ = 25^\circ$

17)a)  $50\text{cm} \times 45\text{cm} \times 38\text{cm} = 85500\text{cm}^3$

$85500\text{cm}^3 \times \frac{1}{4} = 21375\text{cm}^3$

$2.5\text{L} = 2500\text{ml}$

$2500\text{ml} \times 5 = 12500\text{cm}^3$

$12500\text{cm}^3 + 21375\text{cm}^3 = 33875\text{cm}^3$

b)  $15\text{L} = 15000\text{cm}^3$

$15000\text{cm}^3 + 33875\text{cm}^3$

$= 48875\text{cm}^3$

$15000/48875 \times 100 \approx 30.69\%$

18) 210

