

Name : _____ ()

Class : Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6

Semestral Assessment One

Mathematics

10 May 2010

Paper 1

Booklet A

**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.

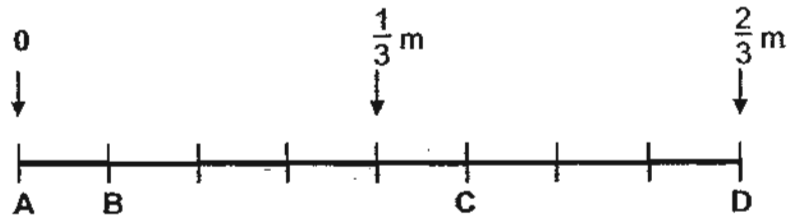
The use of calculators is NOT allowed.

This booklet consists of 6 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)

1.



Using the number line above, how much longer is AC than AB?

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

2) $\frac{4}{9}m$

3) $\frac{2}{3}m$

4) $\frac{5}{9}m$

2. Express $50p$ kg in grams.

1) $50p$ g

2) $(p+5000)$ g

3) $50\,000p$ g

4) $(p+50000)$ g

3. What is the ratio of 2m to 4 km?

1) 1 : 2

2) 1 : 200

3) 1 : 20

4) 1 : 2000

4. Which one of the following is the smallest?

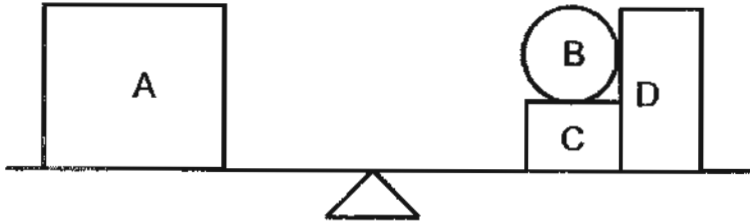
1) 0.103

2) 0.097

3) $\frac{3}{20}$

4) $\frac{7}{100}$

5.



A, B, C and D are boxes. Box A weighs 16 kg. What is the average mass of the 4 boxes?

1) 4 kg

2) 5 kg

3) 8 kg

4) 32 kg

6. In a fund raising project, every class has to put up a quarter hour performance. What is the maximum number of classes that can be scheduled to perform in 6 hours?

1) 6

2) 12

3) 15

4) 24

7. The lengths of 3 pieces of rope, E, F and G are in the ratio 3 : 4 : 8 respectively. Which one of the following statements is correct about the 3 pieces of ropes?

1) E is $\frac{4}{7}$ the length of F.

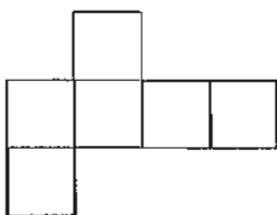
2) F is $\frac{1}{2}$ the length of G.

3) E is $2\frac{2}{3}$ times the length of G.

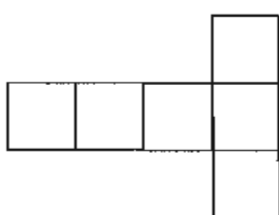
4) F is $1\frac{1}{4}$ times the length of E.

8. Which one of the following nets when folded does not form a cube?

(1)



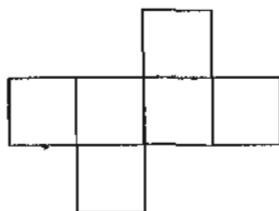
(2)



(3)



(4)



9. Tree A is y cm tall. Tree B is 4 cm taller than Tree A. Tree C is 5 times as tall as Tree A. Express the total height of Tree B and Tree C in terms of y .

1) $6y$ cm

2) $7y$ cm

3) $(6y + 4)$ cm

4) $(7y + 4)$ cm

10. The ratio of the number of women to the number of men in a club is was 6 : 5. If 147 women were to leave the club, the ratio would become 11:15. How many men were there at first?

1) 105

2) 231

3) 315

4) 546

11. Danny fenced up a square field using some poles. He used 59 poles on each side of the square. How many poles did he use altogether?

1) 228

2) 230

3) 232

4) 236

12. Mrs Wong had a piece of ribbon. She cut off $\frac{5}{12}$ of it to tie a present and then another $\frac{3}{7}$ of it to make a bow. What fraction of the ribbon was left?

1) $\frac{13}{84}$

2) $\frac{48}{84}$

3) $\frac{49}{84}$

4) $\frac{71}{84}$

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CHIJ ST NICHOLAS GIRLS' SCHOOL(PRIMARY)



Primary 6

Semestral Assessment One

Mathematics

10 May 2010

Paper 1

Booklet B

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. 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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16. 7 identical files cost \$9y. How much would 9 such files cost?

Ans : \$ _____

17. Tasha had \$10 left after spending \$7 on a magazine. What fraction of her expenditure was her original amount of money?

Ans : _____

18. Find the value of $306 - 128 \div (12 + 20) \times 6$.

Ans : _____

19. Divide the sum of $\frac{1}{5}$ and $\frac{2}{7}$ by 2.

Ans : _____



20. Arrange the fractions in descending order.

$$\frac{7}{8}, \quad \frac{1}{2}, \quad \frac{3}{4}, \quad \frac{5}{6}$$

Ans : _____

21. Amy's savings is $2\frac{1}{3}$ times of Tiffany's savings. What is the ratio of Tiffany's savings to Amy's?

Ans : _____

22. A pizza was shared equally among t children. What fraction of the pizza did 3 children receive?

Ans : _____

23. In $\frac{2}{5} - \frac{1}{8} = \square \times \frac{1}{8}$, what is the missing fraction ?

Ans : _____

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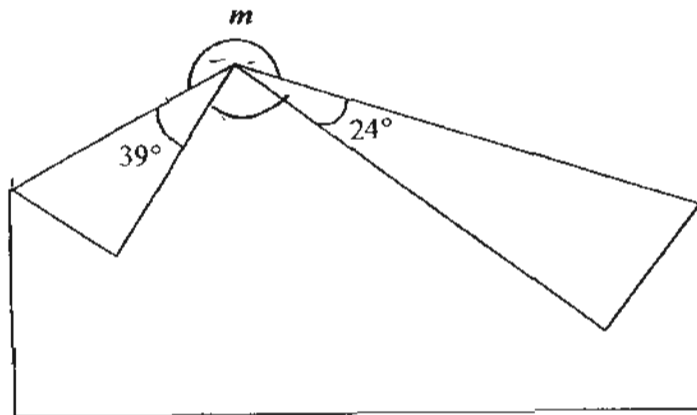


24. The ratio of the side of a square to the side of an equilateral triangle is 2:1. If the area of the square is 49 cm^2 , what is the perimeter of the triangle?

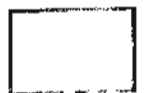
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Ans : _____ cm

25. A rectangular piece of paper is folded as shown below. Find $\angle m$.



Ans : _____ °



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. Jun Hao has twice as many pens as Tim. When Tim gives $\frac{1}{4}$ of his pens to Jun Hao, what is the ratio of the number of Tim's pens to the number of Jun Hao's pens?

Ans : _____

27. There are 80 pupils in Junior Art Club. $\frac{2}{5}$ of them are girls. $\frac{1}{4}$ of the girls live in flats and the rest in condominiums. If all the boys live in condominiums, how many pupils live in condominiums?

Ans : _____



28. For every \$3 saved by Diane, her mother gave her another \$1. How much was saved by Diane if she had \$432 altogether in her savings?

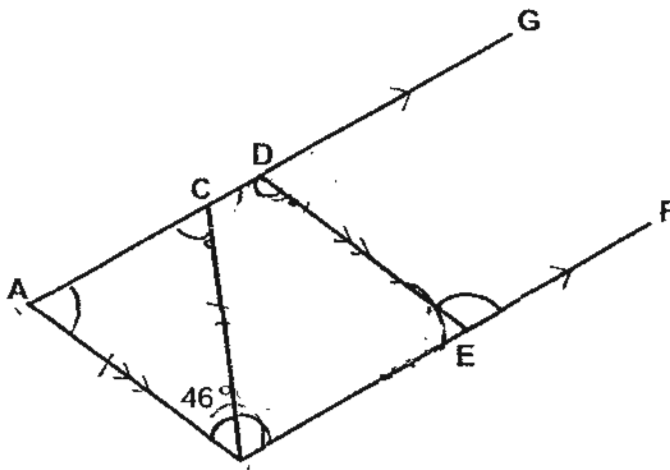
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Ans : \$ _____

29. Raneer thought of 2 numbers, R and S. $\frac{3}{5}$ of R is thrice of S. Given that R is bigger than S by 28, find R.

Ans : _____

30. In the figure below, AB is parallel to DE and AG is parallel to BF. Find $\angle DEF$.



Ans : _____ °

- END OF BOOKLET B -



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CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)



Primary 6

Semestral Assessment One

Mathematics

10 May 2010

Paper 2

Paper 1	40
Paper 2	60
Total	100

Parent's / Guardian's Signature

Time : 1 HOUR 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 an approved calculator is expected, where appropriate.

This booklet consists of 12 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. 520 g of flour can fill $\frac{2}{7}$ of a container. Find the amount of flour needed to fill $\frac{5}{7}$ of the container.

-Ans : _____ g

2. A wooden rod measuring 43m long is cut into smaller pieces each of $\frac{7}{9}$ m long. What is the length of the remaining rod?

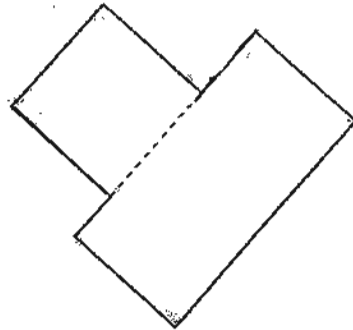
Ans _____ m

3. Simplify $15k + 7 \div k \times 9k - 21$.

Ans : _____



4. The figure is made up of a square and a rectangle. The breadth of the rectangle is equal to the length of the side of the square. The side of the square is r cm. The length of the rectangle is twice as long as the length of the side of the square. Find the perimeter of the figure.



Ans : _____ cm

5. The ratio of the number of apples to the number of mangoes to the number of oranges is $7 : 6 : 4$. If there are 828 more apples than oranges, how many mangoes are there altogether ?

Ans : _____

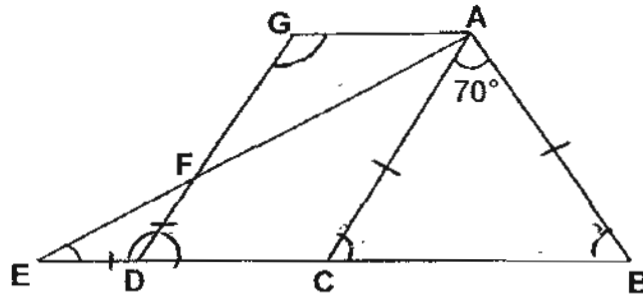
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For questions 6 to 18, show your working clearly in the space below each question and write your answer in the spaces provided. The number of marks available is shown in the brackets () at the end of each question or part-question.

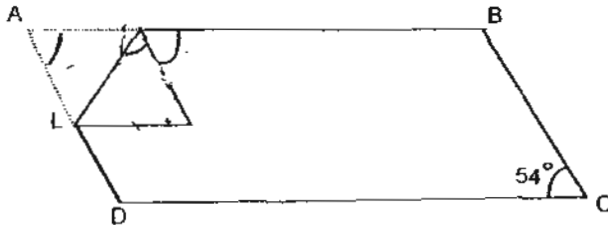
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6. The figure below is not drawn to scale. $AB = AC$, $ED = DF$ and $DG \parallel CA$. EB and EA are straight lines. Find $\angle AED$.



Ans : _____ (3m)

7. ABCD is a parallelogram. JKL is an isosceles triangle. Find $\angle y$.



Ans : _____ (3m)



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8. Jug X and Jug Y are filled to the brim with water. If all the water in Jug X is poured into Container Z, another 28ℓ of water is needed to completely fill it. If all the water in Jug Y is poured into Container Z, another 35ℓ of water is needed to completely fill it. If the water in Jug X and Jug Y is poured into Container Z, it will completely fill Container Z.

How much water does Jug X contain when it is $\frac{3}{7}$ filled?

Ans : _____(3m)

9. 5 friends were playing Wii games on a Friday afternoon from 3 p.m. to 6 p.m. As there were only 4 consoles, they took turns to play. At any time, 3 of them played while the other 2 friends watched. If each of them had the same amount of playing time, how many minutes did each child play that afternoon?

Ans : _____(3m)



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10. One box of greeting cards costs \$3.75. Mandy needs 120 boxes of such cards. For every 4 boxes of cards she buys, she gets 1 box free of charge. How much does Mandy have to pay for 120 boxes of such cards?

Ans : _____ (3m)

11. Shyan is h years old. Her mother is 3 times as old as she is. Her father is 5 years older than her mother.
- a) What is the total age of Shyan and her parents in 5 years' time in terms of h ?
- b) Given that Shyan is 7 years old, find the total age of Shyan and her parents in 5 years' time.

Ans : a) _____ (2m)

b) _____ (1m)



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12. At a sale, Lydia paid \$350.40 for 3 blouses, a pair of pants and 3 T-shirts. A blouse cost twice as much as a T-shirt and a pair of pants cost $1\frac{1}{2}$ times as much as a blouse. How much money would Lydia have saved if she were to buy 2 blouses, a pair of pants and a T-shirt instead?

Ans : _____ (4m)

13. Wynn started her journey with 24.4 ℓ of petrol in her tank. After travelling for a distance, she found that she had only 4.2 ℓ of petrol left. She refilled \$40 worth of petrol at \$0.80 per litre. She continued her journey and at the end of it, she had 8.8 ℓ of petrol left. If 0.2 ℓ of petrol is needed for every 1 km, find the total distance Wynn covered for that day.

Ans : _____ (4m)



14. Farmer Wong had a total of 6600 geese and turkeys. There were 780 more geese than turkeys. After selling 950 turkeys and buying some geese, the ratio of the final number of turkeys to that of geese was 1 : 3. How many geese did he buy?

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Ans : _____ (4m)



15. There are 2 teams of workers at a fast food restaurant. Team G has 30 more members than Team H. Each member in Team G prepares 4 burgers in 1 minute while each member in Team H only prepares 3 burgers in 1 minute. In 1 hour, both teams prepare 36 600 burgers altogether. How many members are there in each team?

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Ans : G _____

H: _____ (5m)



16. The cost of a packet of dried prunes was $\frac{1}{7}$ that of a packet of dried mangoes. A shopkeeper spent $\frac{4}{9}$ of his money on 24 packets of dried mangoes and 24 packets of dried prunes. Then he used the rest of his money to buy another 9 packets of dried mangoes and some packets of dried prunes.

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- a) If he had spent all $\frac{4}{9}$ of his money on dried prunes, how many packets of dried prunes could he buy?
- b) How many packets of dried prunes did he actually buy altogether?

Ans : a) _____ (2m)

b) _____ (3m)



17. At a rugby match $\frac{1}{4}$ of the spectators bought 1 pack of titbits each. $\frac{3}{5}$ of the remaining spectators bought 2 packs of titbits each. The rest of the spectators bought 4 packs of titbits each. Given that all the spectators bought 3854 packs of titbits, how many spectators were there at the match?

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Ans : _____ (5m)



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18. An MRT train set off from the 1st station with some passengers on board. The ratio of the number of men to that of women was 5 : 3. At the 2nd station, $\frac{3}{7}$ of the men and some women alighted. Then the ratio of the number of men to that of women became 10 : 7. At the 3rd station, 70 men and 196 women got on the train and the number of men was the same as the number of women.
- a) How many passengers were there on board the train when it set off from the 1st station?
- b) How many women alighted at the 2nd station?

Ans : a) _____ (3m)

b) _____ (2m)

- END OF PAPER 2 -



ANSWER SHEET

EXAM PAPER 2010

SCHOOL : CHIJ PRIMARY

SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

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

16) $\$(81y/7)$

17) $17/7$

18) 282

19) $17/70$

20) $7/8, 5/6, 3/4, 1/2$

21) 3:7

22) $3/t$

23) $2_{1/5}$

24) 10.5cm

25) 243°

26) 1:3

27) 72 pupils

28) $\$324$

29) 35

30) 113°

Paper 2

<p>1) $2/7 \rightarrow 520g$ $1/7 \rightarrow 260g$ $7/7 \rightarrow 1820g$ $5/12 \times 1820g = 758\frac{1}{3}g$</p>	<p>2) $43 \div 7/9 = 43/1 \times 9/7 = 387/7$ $= 55\frac{2}{7}$ $55 \times 7/9 = 42\frac{7}{9}$ $43 - 42\frac{7}{9} = 2/9m$</p>
<p>3) $15k + 42$</p>	<p>4) $r \times 2 = 2r$ $r + r + r + r + 2r + 2r = 8r$ The perimeter of the figure is $8r$ cm</p>
<p>5) $7 - 4 = 3$ $828 \div 3 = 276$ $276 \times 6 = 1656$ There are 1656 mangoes</p>	<p>6) $\angle GDC \rightarrow 180^\circ - 125^\circ = 55^\circ$ $\angle GDE \rightarrow 180^\circ - 55^\circ = 125^\circ$ $180 - 125^\circ = 55^\circ$ $55^\circ \div 2 = 27.5^\circ$ $\angle AED$ is 27.5°</p>
<p>7) $180^\circ - 54^\circ = 126^\circ$ $126^\circ \div 2 = 63^\circ$ $63^\circ \times 2 = 126^\circ$ $180^\circ - 126^\circ = 54^\circ$ $\angle y$ is 54°</p>	<p>8) $35L - 28L = 7L$ $28 + 7 = 35$ $3/7 \times 35 = 15L$</p>

<p>9) 108 minutes</p>	<p>10) $3.75 \times 4 = 15$ $15 \times 24 = \\$360$ Manny pay \$360</p>
<p>11) a) Shyan $\rightarrow h+5$ Mother $\rightarrow 3h+5$ Father $\rightarrow 3h+5+5=3h+10$ Total $\rightarrow h+3h+3h+5+5+10=7h+20$ b) Shyan $\rightarrow 7+5=12$ mother $\rightarrow 7 \times 3=21$ $21+5=26$ Father $\rightarrow 21+10=31$ Total $\rightarrow 31+26+12=69$ years old</p>	<p>12) \$116.80</p>
<p>13) $\\$40 \div \\$0.80 = 50L$ $50 + 4.2 = 54.2L$ $24.4 - 4.2 = 20.2$ $54.2 - 88 = 45.4$ $20.2 + 45.4 = 65.6$ $56.6 \div 0.2 = 328$ Wynn covered 328km that day.</p>	<p>14) $6600 - 780 = 5820 \div 2 = 2910$ Turkey $\rightarrow 2910$ Geese $\rightarrow 2910 + 780 = 3690$ $2910 - 950 = 1960$ $1960 \times 3 = 5880$ $5880 - 3690 = 2190$ He bought 2190 geese</p>
<p>15) $1h \rightarrow 60$ minutes $4 \times 60 = 240$ $240 \times 30 = 7200$ $36600 - 7200 = 29400$ $3 \times 60 = 180$ $240 + 180 = 420$ $29400 \div 420 = 70$ (H) $70 + 30 = 100$ (G) G: 100 H: 70</p>	<p>16) a) 1 mango $\rightarrow 7$ prunes 24 mangoes $\rightarrow 24 \times 7 = 168$ prunes $168 + 24 = 192$ b) $4/9 \rightarrow 192$ $5/9 \rightarrow (192 \div 4) \times 5 = 240$ prunes 9 mangoes $\rightarrow 9 \times 7 = 63$ prunes $240 - 63 = 177$ $177 + 24 = 201$ packets</p>
<p>17) $4/4 - 1/4 = 3/4$ $3/5 \times 3/4 = 9/20$ $1 \times 5 = 5$ $2 \times 9 = 18$ $4 \times 6 = 24$ $24 + 18 + 5 = 47$ $3854 \div 47 = 82$ $82 \times 20 = 1640$</p>	<p>18) a) $3u \rightarrow 196 - 70 = 126$ $1u \rightarrow 126 \div 3 = 42$ $10 + 7 = 17$ $17 \times 42 = 714$ $10 \times 42 = 420$ $420 \div 4 = 105$ $105 \times 7 = 735$ $735 \div 5 = 147$ $147 \times 3 = 441$ $735 + 441 = 1176$ <i>18. b) $7u \Rightarrow 42 \times 7$ $= 294$ $441 - 294$ $= 147$</i></p>