

Name : _____ ()

Class : Primary 6__

CHIJ ST NICHOLAS GIRLS' SCHOOL



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Primary 6

Continual Assessment 1 - 2009

Mathematics

Paper I

Booklet B

2 March 2009

TOTAL TIME FOR BOOKLETS A AND B : 50 MINUTES

INSTRUCTIONS TO CANDIDATES

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.

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)

1. The average height of 11 men is 1.81m. The average height of 6 of them is 1.79m. What is the average height of the remaining men?

Ans : _____ m

2. Wynn has 60 stickers. Ben has 40 stickers more than Wynn. What percentage of Ben's stickers must Ben give Wynn so that both of them have the same number of stickers?

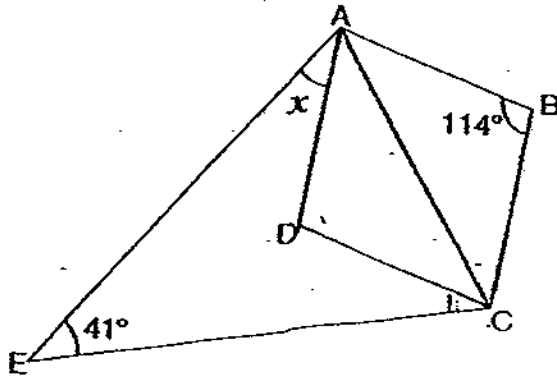
Ans : _____ %

3. Pam bought a piece of cloth 7m long. She cut 4 equal pieces of length 128cm each to make 5 cellphone pouches. She cut the remaining cloth into equal pieces of 47cm each. How many pieces of 47-cm cloth did she have?

Ans : _____



4. ABCD is a rhombus and $\angle ECA = 74^\circ$. Find $\angle x$.



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Ans : _____^o

5. Ivy is $3p$ years old. In 6 years' time, she will be thrice as old as her brother.
 a) How old is her brother in 6 years' time? Leave your answer in terms of p .
 b) If $p = 13$, how old is her brother now?

Ans : a) _____

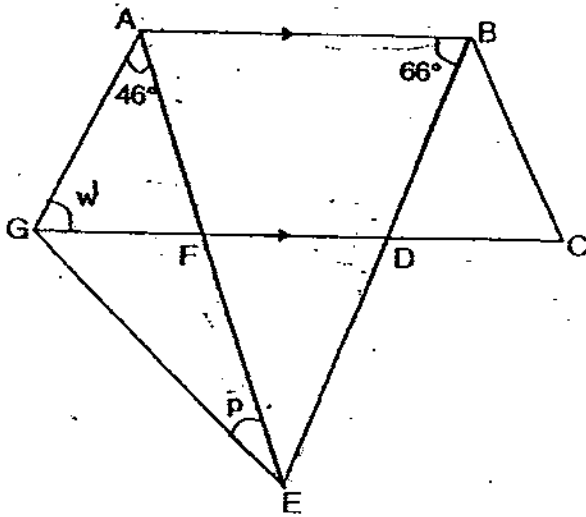
b) _____



For questions 6 to 18, 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 the 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. Given that $\angle GED = 70^\circ$ and EF is as long as ED , find the ratio of $\angle w$ to $\angle p$.



Ans : _____ [3m]



7. A plumber had a pipe which was 9 m long. He cut it into 14 pieces of $\frac{2}{5}$ m each. Then he cut the remaining pipe into some pieces of $\frac{7}{20}$ m each. How many metres of pipe was he left with?

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Ans : _____ [3m]

8. A jar weighs 3.207 kg when it is $\frac{5}{12}$ filled with candies, and weighs 4 kg 120 g when it is $\frac{7}{8}$ filled with candies. What is the total mass of the jar when it is completely filled with candies?

Ans : _____ [3m]



9. Felicia and Hazel had badminton practice every day. The ratio of the number of hours Felicia practised per week to the number of hours Hazel practised per week was 9 : 4. Felicia practised for 45 hours more than Hazel every week. Find the total number of hours they had badminton practice in 3 weeks.

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Ans : _____ [3m]

10. A jug with a capacity of 0.98ℓ is $\frac{6}{7}$ full of ^{juice} water. $\frac{1}{3}$ of the juice is poured into a glass.

a) How much juice is left in the jug?

b) The capacity of the glass is $\frac{2}{5}$ of the capacity of the jug. If the capacity of a bottle is thrice as much as the capacity of the glass, what is the total capacity of the bottle, the jug and the glass? Leave your answer in ℓ .

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Ans : a) _____ [1m]

b) _____ [2m]



11. Box E, Box F and Box G contain some books. Box E contains 70 fewer books than Box F. Box G contains twice as many books as Box F. If the average number of books in the 3 boxes is 386, find the number of books in Box G.

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Ans : _____ [4m]



12. In a group of 1088 children, 256 are girls. The ratio of the number of boys who play the piano to the number of girls who do not play the piano is 11:3. If there are 192 girls who do not play the piano, express the number of boys who do not play the piano as a fraction of the total number of children who play the piano.

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Ans : _____ [4m]



13. Mrs Lim wanted to top up her car to full tank with \$80 worth of petrol. The table shows the discounts given by 3 different petrol kiosks.

Petrol Kiosk	Discount
X	12% discount
Y	\$9 cash discount
Z	15% discount

Among all the petrol kiosks, only Petrol Kiosk X and Petrol Kiosk Y charge a 7% GST on its discounted price.

- (a) Which petrol kiosk offered the best discount ?
 (b) If Mrs Lim were to go to the petrol kiosk which offered the best discount, how much would she save ?

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Ans : a) _____ [3m]

b) _____ [1m]



14. Nadine spent $\frac{3}{8}$ of her salary on food and $\frac{1}{3}$ of the remainder on transport. Then she shared the rest of the salary equally with her siblings such that each of them received $\frac{1}{12}$ of her total salary.

- a) How many siblings does Nadine have?
- b) Given that Nadine and her siblings received \$208 each, how much money did Nadine spend on transport?

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Ans : a) _____ [2m]

b) _____ [2m]



15. $\frac{1}{5}$ of the audience in a hall are women. $\frac{2}{5}$ of the remaining audience are men. The rest are children. If there are 266 boys in the hall and the number of girls is twice as many as the number of boys, find the number of men in the hall.

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Ans : _____ [4m]



16. John earns a commission of \$2.20 for every magazine he sells. He also receives an additional bonus of \$5 for every dozen magazines he sells. How many magazines must he sell to earn \$325?

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Ans : _____ [5m]



17. The original amount of money Samuel had to the original amount of money Nigel had was 4:5. After Samuel spent $\frac{5}{9}$ of his money on clothing, $\frac{1}{3}$ of it on gifts and gave \$1500 to his mother, he had \$560 left. What was the total amount of money both men had originally?

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Ans : _____ [5m]



18. Study the patterns formed by black and white tiles below and answer the following questions.



Pattern 1 Pattern 2 Pattern 3 Pattern 4

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a) Using the series of patterns above, complete the table below.

Pattern	No. of Black Tiles	No. of White Tiles	Total No. of Tiles
1	3	1	4
2	6	3	9
3	9	7	16
4	12	13	25
5	15		36

[1m]

b) Find the total number of tiles in Pattern 110.

Ans : _____ [2m]

c) In which pattern will there be 9313 white tiles?

Ans : _____ [2m]

----- End Of Paper -----



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This booklet consists of 6 printed pages.

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 (OAS). (20 marks)

1. How many quarters are there in $5\frac{1}{2}$?

1) 10

2) 11

3) 20

4) 22

2. What is the difference between $4\frac{2}{9}$ and $1\frac{2}{3}$?

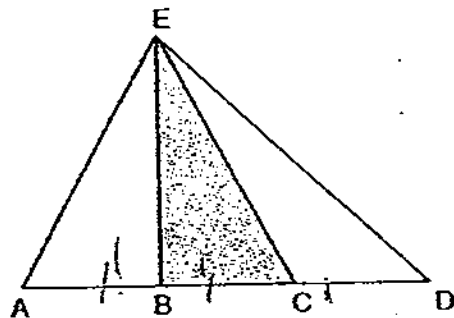
1) $2\frac{2}{3}$

2) $2\frac{5}{9}$

3) $3\frac{5}{9}$

4) $3\frac{4}{9}$

3. The figure below is not drawn to scale. $AB = BC = CD$. What fraction of the figure is shaded?



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

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

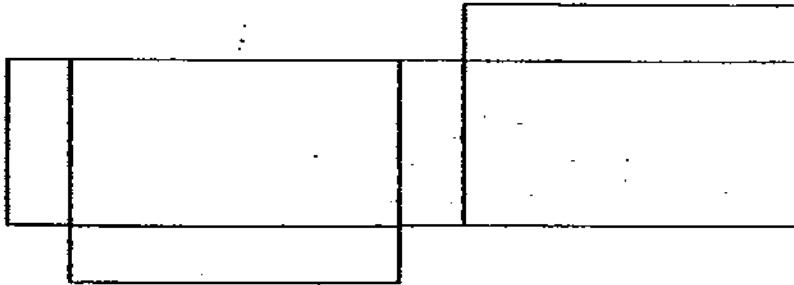
3) $\frac{1}{3}$

4) $\frac{5}{6}$

4. 0.9% is the same as _____.

- 1) 0.9
- 2) 0.09
- 3) 0.009
- 4) 0.0009

5. The figure below shows the net of a _____.



- 1) cube
- 2) cylinder
- 3) cuboid
- 4) pyramid

6. How many minutes are there in $\frac{3}{5}$ of 4 hours ?

- 1) $\frac{1}{25}$ min
- 2) $2\frac{2}{5}$ min
- 3) 72 min
- 4) 144 min

7. The usual price of a school bag is \$16. Shelia bought the school bag during a sale at a 20% discount. How much did she pay for the school bag?

- 1) \$3.20
- 2) \$12.80
- 3) \$15.80
- 4) \$19.20

8. The table below shows the ages of 4 friends. Whose age is the closest to their average age?

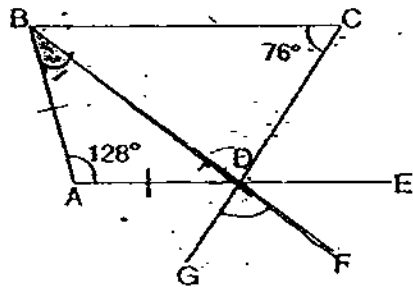
Name	Age (Years)
Alice	28
Beatrice	26
Candy	30
Dora	27

- 1) Alice
2) Beatrice
3) Candy
4) Dora
9. Express 90¢ as a ratio of \$30.
- 1) 3 : 10
2) 3 : 100
3) 9 : 5
4) 100 : 3
10. Rithu has \$p. Mei has thrice as much as Rithu. Zina has \$4. How much do the three children have altogether?
- 1) \$7p
2) \$8p
3) \$(p + 7)
4) \$(4p + 4)
11. After giving Samuel \$45 and spending another \$30, Geetha had as much money as Samuel. How much more money than Samuel did Geetha have at first?
- 1) \$15
2) \$75
3) \$90
4) \$120

12. Siti used flour and butter in the ratio of 13 : 8 to make a tray of pineapple tarts. If she used 650g of flour, how much more flour than butter did she use?

- | | |
|---------|---------|
| 1) 50g | 2) 130g |
| 3) 250g | 4) 400g |

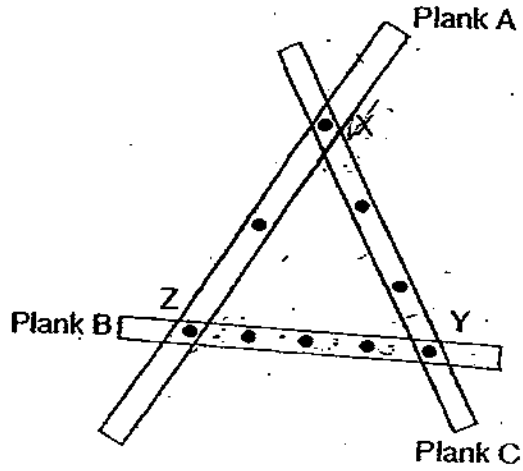
13. In the figure below, not drawn to scale, ABCD is a trapezium and $AB = AD$. Find $\angle GDF$.



14. Dylan had 120 more local stamps than foreign stamps. After giving away 72 stamps of each type, his collection of foreign stamps was $\frac{1}{2}$ of his collection of local stamps. Find the total number of stamps he had left.

- | | |
|--------|--------|
| 1) 264 | 2) 360 |
| 3) 384 | 4) 408 |

15. Three planks, A, B and C, are nailed together to make a frame as shown below.
 Plank A has 3 holes which divide it into 4 equal parts. Plank B has 5 holes which divide it into 6 equal parts and Plank C has 4 holes which divide it into 5 equal parts.
 In the frame, the holes X, Y and Z are the three corners of an equilateral triangle.



Plank A is 240 cm long. What is the total length of the 3 planks?

- | | |
|-----------|-----------|
| 1) 360 cm | 2) 480 cm |
| 3) 620 cm | 4) 720 cm |

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

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16. $\frac{4}{9} \div 18 =$

Ans : _____

17. The number of female workers is $\frac{2}{9}$ of the number of male workers in a factory. What is the ratio of the number of male workers to the number of female workers in the factory?

Ans : _____

18. $78 \times 54 + 10 \times 54 = \boxed{} \times 54 - 54$

The missing number in the box is _____.

Ans : _____



19. The ratio of Harry's mass to John's mass is 7 : 5. Their average mass is 42 kg. Find Harry's mass.

Do not write in this space.

Ans : _____ kg

20. $\frac{1}{3}$ of Q is $\frac{2}{5}$ of R. Which is bigger, Q or R?

Ans : _____

21. The length of a cuboid is 12m. The breadth is $\frac{1}{2}$ of its length and the height is 5m. What is the volume of the cuboid?

Ans : _____ m³

22. Find the average of the first six multiples of 5.

Ans : _____



23. Simplify the following expression.

$$16y + 12x\beta - 4y - 7$$

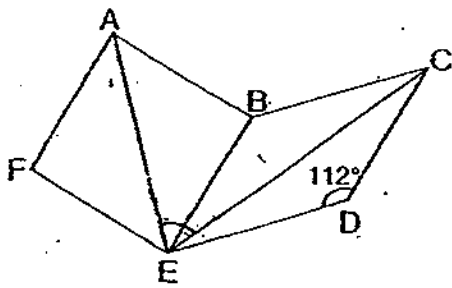
Do not write in this space.

Ans : _____

24. What is 30% of 1 km 2 m?

Ans : _____ m

25. In the figure, not drawn to scale, BCDE is a rhombus and ABEF is a square. Find $\angle AEC$.



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 answer in the units stated.

(10 marks)

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26. The total cost of 4 identical rulers and 1 pen is \$ x . If the pen costs \$7, what is the cost of each ruler?

Ans : \$ _____

27. Mr Ahmad poured water into a container until it was $\frac{2}{5}$ full. Later, 84 cm^3 of water was added and the container became $\frac{3}{4}$ full. What was the capacity of the container?

Ans : _____ cm^3

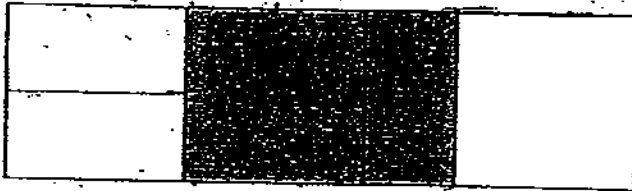


28. Mina paid \$56 for 4 identical belts and 6 identical hair clips. Each belt cost \$5 more than each hair clip. Find the cost of one hair clip.

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Ans : \$ _____

29. The figure below is made up of 2 identical squares and 3 identical rectangles. Given that the perimeter of the figure is 72 cm, find the area of the shaded parts.



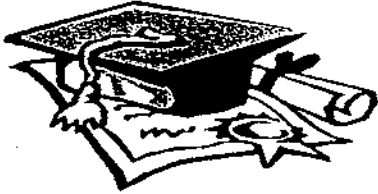
Ans : _____ cm²

30. $\frac{7}{9}$ of a square is coloured purple. Delia wants to cut $\frac{1}{2}$ of this part into smaller pieces such that each piece is $\frac{3}{25}$ of the whole square. What is the maximum number of pieces that she can cut?

Ans : _____

-----END OF PAPER-----



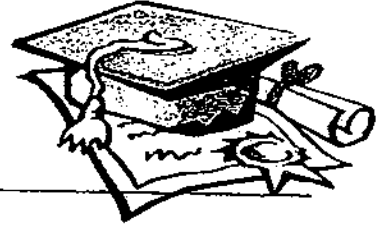


ANSWER SHEET

EXAM PAPER 2009

SCHOOL : CHIJ PRIMARY
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : CA1



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

16)81 17)9:2 18)89 19)49kg 20)Q

21)360m³ 22)17.5 23)12y+89 24)300.6m 25)79°

26)\$(x-7)/4 27)240cm³ 28)\$3.60 29)96cm² 30)3

Paper 2

1) $11 \times 1.81 = 19.91$ $1.79 \times 6 = 10.74$ $19.91 - 10.74 = 9.17$ $11 - 6 = 5$ $9.17 \div 5 = 1.834m$	2) $60 + 40 = 100$ $100 + 60 = 160$ $160 \div 2 = 80$ $80 - 60 = 20$ $20/100 \times 100 = 20\%$
3) $128 \times 4 = 512$ $700 - 512 = 188$ $188 \div 47 = 4$	4) $180 - 114 = 66$ $66 \div 2 = 33$ $74 + 41 = 115$ $180 - 115 = 65$ $65 - 33 = 32$
5) a) $3p + 6/3$ b) 9	6) 34:11

<p>7) $14 \times 2/5 = 53/5$ $85/5 - 53/5 = 32/5$ $32/5 \div 7/20 = 95/7$ $5/7 \times 7/20 = 1/4$</p>	<p>8) $21 - 10 = 11$ $4.120 - 3.207 = 0.913$ $0.913 \div 11 = 0.083$ $0.083 \times 3 = 0.249$ $0.249 + 4.120 = 4.369\text{kg}$</p>
<p>9) $9 - 4 = 5$ $45 \div 5 = 9$ $9 + 4 = 13$ $13 \times 3 = 39$ $39 \times 9 = 351 \text{ hours}$</p>	<p>10) a) $0.98 \div 7 = 0.14$ $0.14 \times 6 = 0.84$ $0.84 \div 3 = 0.28$ $0.28 \times 2 = 0.56$ b) $0.98 \div 5 = 0.196$ $0.196 \times 2 = 0.392$ $0.392 \times 3 = 1.176$ $1.176 + 0.392 + 0.98 = 2.548\text{L}$</p>
<p>11) $386 \times 3 = 1158$ $1158 + 70 = 1228$ $1228 \div 4 = 307$ $307 \times 2 = 614$</p>	<p>12) $1/6$</p>
<p>13) a) Petrol Kiosk Z b) \$12</p>	<p>14) a) $15 - 5 = 10$ $10 \div 2 = 5$ $5 - 1 = 4$ b) $208 \times 5 = 1040$ $1040 \div 10 = 104$ $104 \times 5 = 520$</p>
<p>15) 532</p>	<p>16) 125</p>
<p>17) \$41715</p>	<p>18) a) 12321 b) 97</p>