



**Rosyth School**  
**First Continual Assessment 2010**  
**Primary 6 Mathematics**

Name: \_\_\_\_\_ Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 3<sup>rd</sup> March 2010

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 50 min

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**PAPER 1**  
**(Booklet A)**

Instructions to Pupils:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. You are not allowed to use a calculator

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	

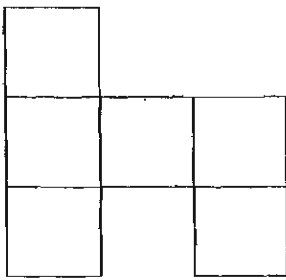
\* This booklet consists of 6 pages (excluding this cover page)

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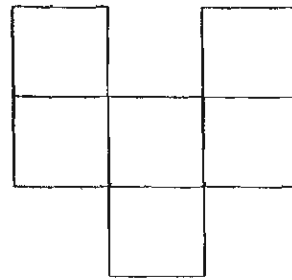
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

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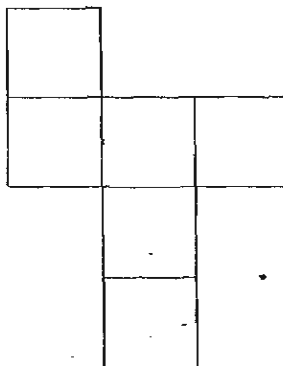
1 Which of the following nets can be folded to form a cube?



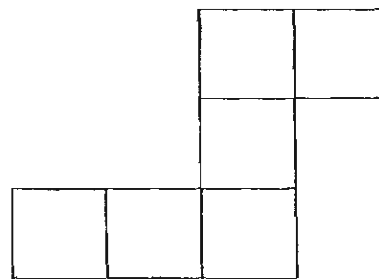
(A)



(B)



(C)



(D)

- (1) A and B only
- (2) B and C only
- (3) C only
- (4) D only

2 Simplify the following algebraic expression:

$$4a + 16 + 3a - 5$$

(1)  $7a + 11$

(2)  $7a - 11$

(3)  $7a + 21$

(4)  $7a - 21$

3  $14m$  has the same value as

?

(1)  $7 + 7 + m$

(2)  $7 + 7 \times m$

(3)  $7 \times 2 \times m$

(4)  $7 \times 2 + m$

4 Find the ratio of 80 cm to 140 cm.

(1)  $1 : 2$

(2)  $2 : 1$

(3)  $7 : 4$

(4)  $4 : 7$

5 6 apples cost as much as 9 oranges. Each orange costs \$y. What is the cost of 2 apples?

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

(2)  $\$ 2y$

(3)  $\$ 3y$

(4)  $\$ \frac{9y}{2}$

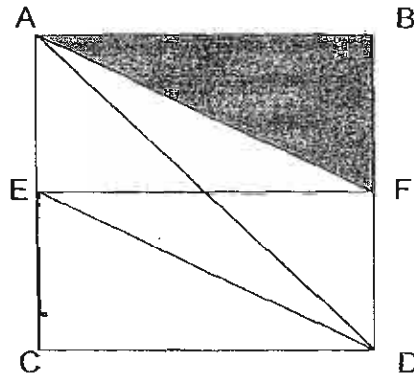
6 ABCD is a square with midpoints at E and F. What fraction of ABCD is shaded?

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

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

(3)  $\frac{1}{5}$

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



7 Azlina and Elijah had an equal number of stickers. Elijah gave  $\frac{2}{5}$  of his stickers to Azlina. What was the ratio of Azlina's stickers to Elijah's stickers?

(1) 3 : 5

(2) 5 : 3

(3) 3 : 7

(4) 7 : 3

8 The length of square X is 4 times the length of square Y.  
What is the ratio of the area of square X to the area of square Y?

- (1) 1 : 4
- (2) 4 : 1
- (3) 1 : 16
- (4) 16 : 1

9 In a class of 40 pupils, there are 16 more boys than girls. What is the ratio of the number of boys to the number of girls?

- (1) 2 : 3
- (2) 3 : 2
- (3) 3 : 7
- (4) 7 : 3

10 The word "ROSYTH" is repeated in the pattern shown below. What would be the 50<sup>th</sup> letter?

R    O    S    Y    T    H    R    O    S    Y    .....

1<sup>st</sup>   2<sup>nd</sup>   3<sup>rd</sup>

- (1) R
- (2) O
- (3) S
- (4) Y

11 Express 20 min as a fraction of 3 hours.

(1)  $\frac{1}{9}$

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

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

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

12 Ten trees were planted on a road at equal distances. The distance between the first and the fourth trees was 24 m. Calculate the distance between the first and the tenth tree.

(1) 54 m

(2) 60 m

(3) 72 m

(4) 80 m

13  $\frac{2}{3}$  of Leon's money is equal to  $\frac{3}{4}$  of Benny's. What fraction of Benny's money is the total sum of money?

(1)  $\frac{8}{9}$

(2)  $\frac{9}{17}$

(3)  $\frac{17}{8}$

(4)  $\frac{17}{9}$

- 14 A sum of money is divided among Anna, Benny and Christine in the ratio of 3 : 4 : 5 respectively. If Christine receives \$80 more than Anna, what is the sum of money?
- (1) \$120
  - (2) \$240
  - (3) \$320
  - (4) \$480
- 15 The ratio of Jeya's age to Aziz's age is 2 : 3. In 10 years' time, their average age will be 20. What will be the ratio of Jeya's age to Aziz's age in 10 years' time?
- (1) 2 : 3
  - (2) 9 : 11
  - (3) 11 : 9
  - (4) 12 : 13



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Date: 3<sup>rd</sup> March 2010

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 50 min

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**PAPER 1**  
**(Booklet B)**

Instructions to Pupils:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. You are not allowed to use a calculator

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	20	

\* This booklet consists of 5 pages (excluding this cover page)

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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 A total of \$848 484 was collected from a fund-raising project. Express this value to the nearest hundred thousand dollars.

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

- 17 Find the value of  $\frac{5}{k-1} - \frac{4}{3k+1}$  if  $k = 2$ . Leave your answer in the simplest form.

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

- 18 How many thirds are there in 12 ?

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

- 19 Find the missing value.

$$\boxed{?} : 25 = 64 : 100$$

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

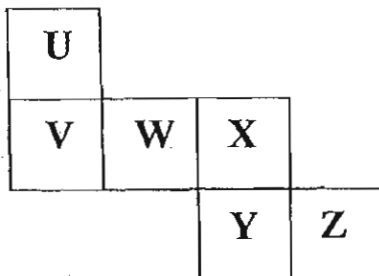
20 Find the value of  $30 \div \frac{1}{5} + 24 \times \frac{1}{2} + 1$

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

21 Zoe has \$18. Her sister has \$5 less. Their mother gives them \$y each.  
How much do they have altogether?

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

22 The following is a net of a cube.  
Which face is opposite the face marked W?



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

23.

6, 7, 8

Using any two numbers in the box above, form the largest two-digit number which is a multiple of 3.

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

24 If A is 3 times of B and B is 3 times of C.  
What is the ratio of A to C?

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

25 If 10 pens cost \$ $n$ , how much would 1 pen cost? Leave your answer in the simplest form?

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

Questions 26 to 30 carry 2 marks each. Show your workings 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.

26 If  $\frac{5}{8}$  of a number is 30, what is  $\frac{2}{3}$  of the number?

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

27 8 packets of chicken nuggets cost \$20. What is the maximum number of packets of chicken nuggets Joel can buy with \$32?

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

28 Observe the pattern below carefully and find the missing value. Leave your answer in the simplest form.

Pattern	1	2	3	4	5	.....	30
Value	$\frac{1}{2}$	$\frac{1}{6}$	$\frac{1}{12}$	$\frac{1}{20}$	$\frac{1}{30}$	.....	?

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

- 29 A soccer tournament is organised for 6 teams. Each team has to play with every other team. How many matches will be played in all?

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

- 30 The ratio of the number of boys to girls in a school was 5 : 4. When 210 boys left, the enrolment was decreased to  $\frac{2}{3}$  of its actual size. How many boys were there at first?

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

END OF PAPER 1



**Rosyth School**  
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**Primary 6 Mathematics**

Name: \_\_\_\_\_ Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 3<sup>rd</sup> March 2010

Parent's Signature: \_\_\_\_\_

Time: 1 h 40 min

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**PAPER 2**

Instructions to Pupils:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Show your workings clearly as marks are awarded for correct working.
5. Write your answers in this booklet.
6. You are allowed to use a calculator

Questions	Maximum Mark	Marks Obtained
Q 1 to 5	10	
Q 6 to 18	50	

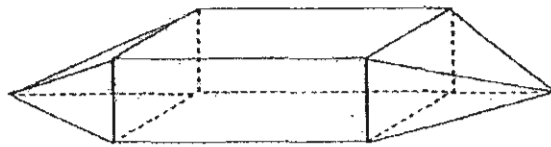
Section	Maximum Mark	Marks Obtained
Paper 1	40	
Paper 2	60	
Total	100	

\* This booklet consists of 12 pages (including this cover page)  
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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 How many faces does the solid (shown below) have?



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

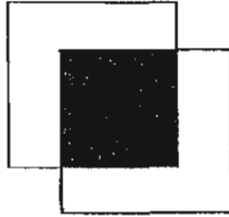
- 2 James had some money. He spent  $\frac{1}{3}$  of his money on food and  $\frac{1}{3}$  of the remainder on transport. What fraction of his money was left?

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

- 3 A number is between 50 and 70. When it is divided by 3, the answer is a whole number. When it is divided by 8, it has a remainder of 5. What is the number?

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

- 4 The figure shows 2 overlapping identical squares (not drawn to scale).  $\frac{2}{5}$  of each square is shaded. What is the ratio of the shaded area to the unshaded area of the figure? Express your answer in its simplest form.



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

- 5 Mrs Tan takes 15 minutes to paint a wall and Mr Tan takes 10 minutes to paint the same wall. If both of them paint the wall together, how long will they take to paint the wall?

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

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 brackets [ ] at the end of each question or part-question.  
(50 marks)

- 6 An egg tray with  $w$  eggs weighs 500 g. The empty egg tray weighs 20g.
- a) What is the average mass of an egg in terms of  $w$ ?
  - b) If  $w = 12$ , what is the average mass of an egg?

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

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

- 7 The table below shows the airmail rates to America.

Mass of Airmail (Maximum mass of 2 kg)	Rate
First 20 g	\$1.10
Additional 10 g	\$0.35

Find the cost of the airmail which weighs:

- a) 29 g
- b) 2 kg

Ans: a) \_\_\_\_\_ [1]

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

- 8 The ratio of the number of apples to the number of pears at a fruit stall is 4 : 5. After  $\frac{1}{2}$  of the apples is sold, there are 45 more pears than apples. How many pears are there?

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

- 9 Ashlyn, William and Tom had a total of 400 stamps. Ashlyn gave 45 stamps to William. William gave 56 stamps to Tom. In the end, the ratio of the number of stamps Tom had to the number of stamps Ashlyn had to the number of stamps William had was 9 : 6 : 10. How many stamps did William have at first?

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

10 In a fun fair, Mathew and John sold 368 balloons. John and Keith sold 112 balloons altogether. Mathew sold 9 times as many balloons as Keith. How many balloons did the three boys sell altogether?

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

11 The ratio of Amy's height to Betty's height is 1 : 2. The ratio of Betty's height to Carmen's height is 3 : 5. Betty is 144 cm taller than Amy. What is the average height of the 3 girls?

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

12

Kiran and Amirun had \$12 650 together. Kiran spent  $\frac{3}{5}$  of his money and Amirun gave  $\frac{1}{4}$  of his money to his wife. They found that they had the same amount of money left.

- a) How much did Kiran have at first?  
b) What is the ratio of Kiran's money to Amirun's money at first?  
Express your answer in its simplest form.

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

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

13

Mr Yeo awards 15 points for every piece of work handed in on time and deducts 8 points for work handed in late. In the month of August, his class pupils collected 1073 points. For every 5 pieces of work given, Mr Yeo found that 2 pieces of work were handed in late. How many pieces of work were handed in on time?

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

- 14 Coin boxes A, B, C and D contained some one-dollar, fifty-cent, twenty-cent and ten-cent coins respectively. Coin box A had 6 times as many coins as Coin box C. Coin box B contained 108 coins fewer than Coin box A. Coin box C contained  $\frac{1}{3}$  the number of coins in Coin box B and 4 times as many coins as Coin box D. What is the total amount of money in the four coin boxes?

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

- 15 There were some kittens, puppies and lambs in an animal farm. The ratio of the number of kittens to the number of puppies is 3 : 2. The ratio of the number of kittens to the number of lambs is 2 : 3. If the kittens, puppies and lambs had a total of 1976 legs, how many more lambs than puppies were there?

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

- 16 Fazillah, Linda and Winnie each owned a collection of comics. The total collection owned by Linda and Winnie was  $\frac{3}{2}$  as many comics as Fazillah owned. Linda owned  $\frac{4}{5}$  as many comics as the total collection owned by Fazillah and Winnie. If Winnie owned 169 fewer comics than Linda, how many comics must Fazillah and Linda each give to Winnie in order for the three girls to have the same number of comics?

Ans: Fazillah: \_\_\_\_\_ }  
Linda: \_\_\_\_\_ }[4]

- 17 A train left Marymount Station with some passengers. At the first stop, no passengers alighted and the number of passengers who boarded the train was  $\frac{2}{3}$  of the original number of passengers in the train. At the second stop,  $\frac{1}{5}$  of the passengers alighted and 32 passengers boarded the train. At the third stop,  $\frac{5}{6}$  of the passengers alighted and 28 passengers boarded the train. At Bartley Station, all 150 passengers alighted from the train. How many passengers were there when the MRT left Marymount Station?

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

18 The ratio of male members to female members in a swimming club is 8 : 5. There are 234 members who are foreigners and the rest are Singaporeans. The ratio of the number of foreigners to the number of Singaporeans is 6 : 5. If there are 80 female foreigners, what is the ratio of the number of female Singaporeans to the ~~ratio~~ <sup>number</sup> of the male Singaporeans?

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

End of Paper

# **ANSWER SHEET**

**EXAM PAPER 2010**

**SCHOOL : ROSYTH PRIMARY**  
**SUBJECT : PRIMARY 6 MATHEMATICS**

**TERM : CA1**

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

- |                                  |                                     |                              |               |                                 |
|----------------------------------|-------------------------------------|------------------------------|---------------|---------------------------------|
| <b>16)\$800000</b>               | <b>17)<math>4\frac{3}{7}</math></b> | <b>18)36</b>                 | <b>19)16</b>  | <b>20)163</b>                   |
| <b>21)\$<math>(31+2y)</math></b> | <b>22)Z</b>                         | <b>23)87</b>                 | <b>24)9:1</b> | <b>25)\$<math>(n/10)</math></b> |
| <b>26)32</b>                     | <b>27)12</b>                        | <b>28)<math>1/930</math></b> | <b>29)15</b>  | <b>30)350</b>                   |

**Paper 2**

<b>1)12 faces</b>	<b>2)<math>4/9</math> of his money was left</b>
<b>3)The number is 69</b>	<b>4)The ratio is 1:3</b>
<b>5)6 min</b>	<b>6)a)<math>500g-20g=480g</math>  <math>(480/w)g</math>                      The average mass is <math>(480/w)g</math>  <b>b)<math>480 \div 12=40g</math></b>                      The average mass of an egg is 40g.                 </b>
<b>7)a)<math>\\$1.10+\\$0.35=\\$1.45</math></b> <b>b)<math>2000-20=1980</math></b> $1980 \div 10=198$ $198 \times \$0.35=\$69.30$ $\$69.30+\$1.10=\$70.40.$	<b>8)<math>5-2=3</math></b> $3u \rightarrow 45$ $1u \rightarrow 15$ $5u \rightarrow 15 \times 5=75$ There are 75 pears.
<b>9)<math>10+9+6=25</math></b> $25u \rightarrow 400$ $1u \rightarrow 400 \div 25=16$ $10u \rightarrow 16 \times 10=160$ (William after) $160+56=216$ $216-45=171$ William have 171 stamps at first.	<b>10)<math>368-112=256</math></b> $256 \div 8=32$ (K) $32 \times 9=288$ (M) $368-288=80$ (J) $80+32+288=400$ They sold 400 balloons altogether.

<p>11) <math>6-3=3</math>  <math>3u \rightarrow 144\text{cm}</math>  <math>1u \rightarrow 48\text{cm}</math>  <math>10+6+3=19</math>  <math>19u \rightarrow 48\text{cm} \times 19 = 912\text{cm}</math>  <math>912\text{cm} \div 3 = 304\text{cm}</math>  <b>Their average height is 304cm.</b></p>	<p>12)a) <math>2/5 \times 3 = 3/4 \times 2</math>  <math>6/15 = 6/8</math>  <math>15+8=23</math>  <math>\\$12650 \div 23 = \\$550</math>  <math>\\$550 \times 15 = \\$8250</math>  <b>Kiran had \\$8250 at first.</b>  b) <math>\\$550 \times 8 = \\$4400</math> (A)  <b>K : A</b>  <b>8250 : 4400</b>  <b>825 : 440</b>  <b>165 : 88</b>  <b>15 : 8</b>  <b>The ratio is 15:8</b></p>
<p>13) <math>8 \times 2 = 16</math>  <math>3 \times 15 = 45</math>  <math>45 - 16 = 29</math>  <math>1073 \div 29 = 37 \rightarrow \text{sets}</math>  <math>3 \times 37 = 111</math>  <b>111 pieces of work were handed in on time.</b></p>	<p>14) <math>108 \div 12 = 9</math>  <math>1u \rightarrow 9</math>  <b>A <math>\rightarrow 9 \times 24 = 216</math> coins.</b>  <b>B <math>\rightarrow 9 \times 12 = 108</math> coins.</b>  <b>C <math>\rightarrow 9 \times 4 = 36</math> coins.</b>  <b>D <math>\rightarrow 9</math> coins.</b>  <math>216 \times \\$1 = \\$216</math> (A)  <math>108 \times \\$0.50 = \\$54</math> (B)  <math>36 \times \\$0.20 = \\$7.20</math> (C)  <math>9 \times \\$0.10 = \\$0.90</math> (D)  <math>\\$216 + \\$54 + \\$7.20 + \\$0.90</math>  <math>= \\$278.10.</math>  <b>The total amount of money is \$278.10.</b></p>
<p>15) <math>1K \rightarrow 4</math> legs  <math>6k \rightarrow 4 \times 6 = 24</math> legs  <math>1p \rightarrow 4</math> legs  <math>4p \rightarrow 4 \times 4 = 16</math> legs  <math>1L \rightarrow 4</math> legs  <math>9L \rightarrow 4 \times 9 = 36</math> legs  <math>36 + 24 + 16 = 76</math>  <math>1976 \div 76 = 26 \rightarrow \text{sets}</math>  <math>9 \times 26 = 234</math> lambs  <math>4 \times 26 = 104</math> puppies  <math>234 - 104 = 130</math>  <b>There were 130 more lambs than puppies.</b></p>	<p>16) <b>Fazillah: 39</b>  <b>Linda: 65</b></p> <p>17) <math>150 - 28 = 122</math>  <math>1/6 \rightarrow 122</math>  <math>1 \rightarrow 122 \times 6 = 732</math>  <math>732 - 32 = 700</math>  <math>4/5 \rightarrow 700</math>  <math>1/5 \rightarrow 175</math>  <math>1 \rightarrow 875</math>  <math>2/3 + 3/3 = 5/3</math>  <math>5/3 \rightarrow 875</math>  <math>1/3 \rightarrow 175</math>  <math>1 \rightarrow 175 \times 3 = 525</math>  <b>525 passengers were there when the MRT left Marymount Station.</b></p>

**18)  $234 \div 6 = 39$**

**$39 \times 5 = 195$  (S)**

**$234 + 195 = 429$  (Total member)**

**$8 + 5 = 13$**

**$429 \div 13 = 33$**

**$33 \times 8 = 264$  (males)**

**$33 \times 5 = 165$  (females)**

**$165 - 80 = 85$  (female Singaporeans)**

**$234 - 80 = 154$  (male foreigners)**

**$264 - 154 = 110$  (male Singaporeans)**

**$85 : 110$**

**$17 : 22$**

**The ratio is 17:22**