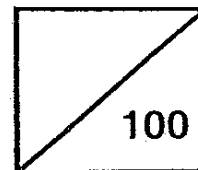




Rosyth School  
First Semestral Assessment 2006  
Mathematics  
Primary 6

Total



Name: \_\_\_\_\_

Class: Pr 6- \_\_\_\_\_ Register No. \_\_\_\_\_

Duration: 2 hr 15 min

Date: 25 May 2006 Parent's Signature: \_\_\_\_\_

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 15 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS).
5. ANSWER ALL THE QUESTIONS.

	Maximum	Marks Obtained
Booklet A	20	
Booklet B Q16 to Q35	30	
Booklet B Q36 to Q48	50	
Total	100	

\* This paper consists of 23 pages altogether.

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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 correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1. Find the value of  $32 + 16 \div 4 \times 8$

- (1) 48
- (2) 64
- (3) 96
- (4) 288

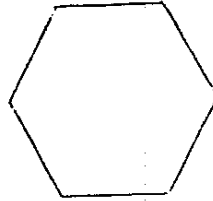
2. Express  $2\frac{1}{6}$  hrs in minutes.

- (1) 121 min
- (2) 126 min
- (3) 130 min
- (4) 136 min

3. Simplify the expression  $3x - 7 + 4x + 9$

- (1)  $7x - 2$
- (2)  $7x + 2$
- (3)  $7x - 16$
- (4)  $7x + 16$

4. How many lines of symmetry are there in the hexagon below?

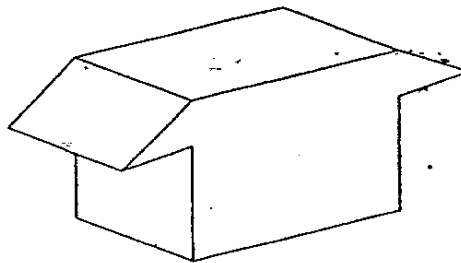


- ~~(A)~~ 1
- ~~(B)~~ 2
- ~~(C)~~ 6
- ~~(D)~~ 4

5.  $\frac{1}{4}$  of the roses in a garden are red,  $\frac{1}{3}$  of the remainder are yellow and the rest are pink. There are 24 more pink roses than yellow roses. How many yellow roses are there?

- (1) 12
- (2) 24
- (3) 48
- (4) 96

6. How many faces does the figure below have?



- (1) 4
- (2) 5
- (3) 9
- (4) 10

7. In a race, Amandah cycled <sup>5hr</sup> 10 km at an average speed of 2 km/h. She then ran 2 km in 10 minutes to finish the race. If she started at 8.00am, at what time will she finish the race?

- (1) 1.00 pm
- (2) 1.05 pm
- (3) 1.10 pm
- (4) 1.15 pm

8. Natalia gets a weekly allowance of \$ 20. She spends 60% of it and saves the rest. How much would she have saved in a month?

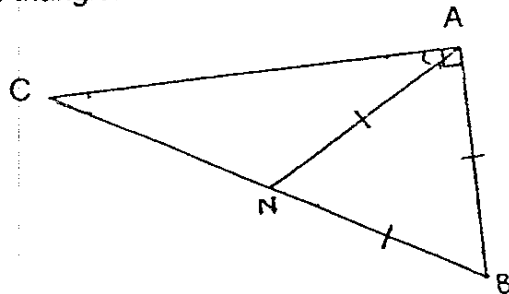
- (1) \$ 8
- (2) \$ 32
- (3) \$ 48
- (4) \$ 80

9.  $8 \times 28 = 56 + 28 - 28 + \boxed{\phantom{00}}$

What is the number in the box?

- (1) 112
- (2) 140
- (3) 160
- (4) 168

10. In the figure (not drawn to scale), ABC is a right-angled triangle. ABN is an equilateral triangle. Find  $\angle ACB$ .



- (1)  $28^\circ$   
(2)  $30^\circ$   
(3)  $32^\circ$   
(4)  $34^\circ$
11. There are 48 red and green apples in a crate.  $\frac{1}{4}$  of the apples are green apples. 4 rotten red apples were thrown away. What is the ratio of the red apples to green apples left?
- (1) 1 : 3  
(2) 3 : 1  
(3) 3 : 8  
(4) 8 : 3
12. Mrs Leo gave Klara and Wei-Rong some sweets in a ratio of 5 : 8. Klara ate half of her share and was left with 20 sweets. How many sweets did Mrs Leo give Wei Rong?
- (1) 25  
(2) 32  
(3) 64  
(4) 104

13. If  $\frac{1}{5}$  of Mr Faheem's salary is \$ 450, what is  $\frac{1}{2}$  of his salary?

- (1) \$ 90
- (2) \$ 225
- (3) \$ 1 125
- (4) \$ 2 250

14. Shing Chi jogs at an average speed of 6 km/h from his home to school. If the school is  $3\frac{1}{2}$  km away from his home, at what time must he leave his home if he wants to arrive at school at 7.15am?

- (1) 6.35 am
- (2) 6.40 am
- (3) 6.45 am
- (4) 6.50 am

15. At a recent ice show at the Singapore Indoor Stadium, 20% of the audience were men, 40% of the remaining people were women, and the rest were children. If there were 192 children, how many people attended the show?

- (1) 240
- (2) 320
- (3) 400
- (4) 420



Rosyth School  
First Semestral Assessment 2006  
Mathematics  
Primary 6

Name: \_\_\_\_\_

Class: Pr 6-\_\_\_\_\_ Register No. \_\_\_\_\_

Date: 05 May 2006

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

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## BOOKLET B

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This booklet consists of 3 sections.
4. For questions 26 to 50, show all relevant working in the spaces provided.
5. ANSWER ALL THE QUESTIONS.

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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)

---

16. A durian weighs 5 times as much as a grapefruit. The difference between their masses is 1 kg 300g. What is the mass of the grapefruit?

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

---

17. Vinish has \$ 45. He spent  $\frac{4}{9}$  of it and lent  $\frac{1}{5}$  of the remaining money to Evette. How much money had he left?

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

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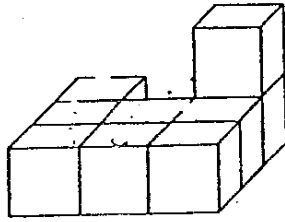
18. Find the value of  $\frac{2x+9}{30}$  if  $x = 3$   
Leave your answer in its simplest form.

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

---



19. How many more unit cubes are needed to complete the figure below to form a cuboid of 3 by 3 by 2 unit cubes?



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

- 
20. At a sale, Azzimah bought a television at a 20% discount. She paid the cashier \$ 840. What was the price of the television before the discount?

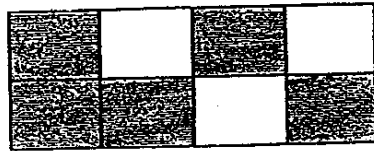
Ans: \$ \_\_\_\_\_

- 
21. Mrs Sum made sardine puffs and curry puffs to be sold at a fun fair. She packed 3 sardine puffs and 5 curry puffs in each plastic bag. Altogether, she had 30 bags. What is the ratio of curry puffs to the total number of puffs?

*the total number of*

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

22. What percentage of the figure is shaded?



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

---

23. John's height is  $\frac{2}{7}$  of Peter's height. Lucy's height is half of John's height. Express Lucy's height as a ratio of the total height of the two boys.

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

---

24. Gerald walks 420 m to the bus-stop to take the bus home from school every afternoon. He walks with an average speed of 60 m/min. On a rainy day, he takes the sheltered walkway and has to walk 150 m longer. How much longer will he take to reach the bus-stop when it rains?

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

---

25. Express  $1\frac{4}{5}$  as a percentage.

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

---

Questions 26 to 35 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

---

26. 30% of a number is 75. What is that number?

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

---

27. 40 Singaporeans went by bus for an overnight trip to Pahang. Upon reaching their destination, 30% of them decided to extend their stay and not return to Singapore the next day. 6 new passengers joined the bus back to Singapore the next day. How many people returned to Singapore the next day?

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

---

28. A motorist travelled a distance of 150 km in  $1\frac{1}{4}$  hrs. How far would he have travelled in 50 minutes?

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

---

29. Timothy has 350 red, blue and green marbles in a bag. 40% of them are green. 40% of the remainder are red. How many blue marbles are there in the bag?

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

---

30. Mr Matthews drove his car to a petrol kiosk from work at an average speed of 50 km/h. The distance between his work place and the petrol kiosk is 15 km. He stopped there for 10 minutes to get petrol and some refreshments. He went home after that and reached home 18 minutes later. If he set off from work at 5.30 pm, what time did he reach home?

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

---

31. Lewis rode his motorcycle to work at an average speed of 60 km/h. He took 25 minutes to reach his work place. However, he forgot his wallet and returned home to get it. What was the total distance travelled by Lewis when he reached his work place the second time around?

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

---

32. Alicia can run 80 m in 16 seconds. Inez can run 100 m in 18 seconds. What is the difference in the time taken if they were to run at their respective speed for a distance of 150 m?

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

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33. For every \$5 Wendi saves, she will receive \$2 from her mother. How much will she receive from her mother if she saves \$280?

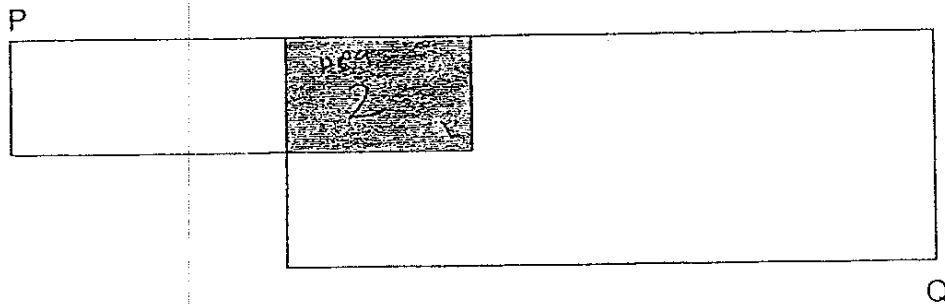
Ans: \$ \_\_\_\_\_

---

34. Three numbers are needed to unlock a combination lock. The second number is  $3d$ . The third number is  $2d$  more than the second number. The sum of the three numbers is  $(10d + 12)$ . Express the first number in terms of  $d$ .

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

35. The figure below is made up of two rectangles, P and Q. The area of the shaded part is  $\frac{2}{5}$  of the area of Rectangle P. The ratio of the area of the shaded part to the area of Rectangle Q is 1 : 6. What is the ratio of the shaded part to the area of the total figure?



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

### Section C

For questions 36 to 48, show your working clearly in the space below each question and write your answers in the spaces provided.

The marks for each question or part-question is shown in brackets ( ) at the end of each question. (50 marks)

- 
36.  $\frac{1}{4}$  of the space in a storeroom was occupied by unused furniture.  $\frac{2}{5}$  of the space was used for old books and magazines.  $\frac{5}{7}$  of the remaining space was used to store gardening tools. What fraction of the space in the storeroom was not used? Express your answer in its simplest form.

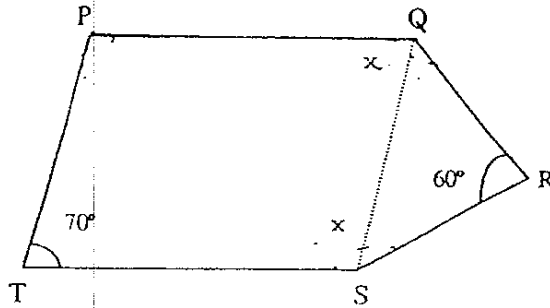
Ans : \_\_\_\_\_ (3m)

- 
37. Ahmad weighs  $h$  kg, Manu weighs  $(h + 3)$  kg and Joseph is 6 kg heavier than Ahmad. What is their average weight?

Ans : \_\_\_\_\_ (3m)



38. In the figure below (not drawn to scale), PQST is a parallelogram.  
 $\angle PQR = \angle TSR$ . Find  $\angle x$ .



Ans : \_\_\_\_\_ (3m)

39. Mrs. Tan had a bag of chocolates and sweets to give to her students. There were 60 sweets. The ratio of the number of chocolates to the number of sweets was 2 : 5. When she gave away some chocolates, the ratio of the number of chocolates to sweets became 1 : 10. How many chocolates did she give away?

Ans : \_\_\_\_\_ (3m)

40. A grocer had some mangoes. When he packed them into bags of seven mangoes, he would have 3 mangoes left. When he packed them into bags of nine mangoes, he would be short of 6 mangoes. What was the least number of mangoes that the grocer had ?

Ans : \_\_\_\_\_ (3m)

- 
41. A car and a motorcycle were 680 km apart. At 9.30 a.m. they moved towards each other. The car moved at the speed of 95 km/h and the motorcycle at 65 km/h. Find the time at which the 2 vehicles passed each other.

Ans: \_\_\_\_\_ (3m)

42. In the beginning, Alan, Bill, Carl and Dan had 63 marbles. Then Alan lost 3 marbles and Dan lost half of what he had. Bill's aunt bought another 3 marbles for Bill. Carl's mother rewarded Carl by doubling what he had originally. In the end, the 4 children had equal number of marbles. How many marbles did (a) Alan, (b) Bill and (c) Dan had at first ?

Ans : (a) \_\_\_\_\_ (2m)

(b) \_\_\_\_\_ (1m)

(c) \_\_\_\_\_ (1m)

43. The amount of sales in Takashimaya had increased by 20% in February 2006 as compared to January 2006. However, the amount of sales had decreased by 10% in March 2006 as compared to the amount of sales in February 2006. The difference in the amount of sales between January 2006 and March 2006 was \$6 800. What was the difference in sales between February and March 2006 ?

Ans : \_\_\_\_\_(4m)

---

44. Elly, Fay and Gwen sold charity tickets to raise funds. Each ticket was priced at \$15. Elly sold  $\frac{1}{6}$  of the tickets. Fay and Gwen sold the remaining tickets in the ratio of 1 : 2 respectively. Gwen sold 91 tickets more than Elly. How much money did they collect altogether?

Ans: \_\_\_\_\_ (4m)

---

45. Mr. Lee spent  $\frac{3}{7}$  of his salary on 6 shirts and 6 pairs of pants and  $\frac{1}{4}$  of the remaining salary on 10 books. Each shirt cost  $\frac{1}{6}$  as much as a pair of pants. Each book cost \$3 more than a shirt. How much money did Mr. Lee spend on each pair of pants?

Ans : \_\_\_\_\_(5m)

---

46. The average time taken by Liz, Mike and Nur to complete their homework was 1 hour 35 minutes. Liz took thrice as long as Mike and she was 30 minutes slower than Nur. What was the average time taken by Liz and Nur in completing their homework?

Ans : \_\_\_\_\_ (5m)

---

47. Omar and Mike were racing on a cross country motor race at an average speed of 140 km/h and 120 km/h respectively. At 8 a.m., Omar was 45 km ahead of Mike. Forty five minutes later, Omar's car broke down and he discontinued the race.
- (a) How far was Omar ahead of Mike when Omar's car broke down? (3m)  
(b) At what time did Mike pass the point where Omar's car broke down? (2m)

Ans : (a) \_\_\_\_\_ (3m)

(b) \_\_\_\_\_ (2m)

---



48. On the first day, the number of male visitors at the zoo was 600 more than the number of female visitors. On the second day, the number of female visitors increased by 30 % and the number of male visitors decreased by 20%. Given that there were 2160 visitors on the second day, how many visitors were there on the first day?

Ans : \_\_\_\_\_ (5m)

---

End of paper

# Rosyth Primary School

## Primary 6 Maths SA1 Exams (2006)

### Answer Sheets

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

16. 325g

17. \$20.00

18.  $\frac{1}{2}$

19. 9 more unit cubes

20. \$1050.00

21. 5 : 8

22.  $62\frac{1}{2}$

23. 1 : 9

24.  $2\frac{1}{2}$  mins

25. 180%

26.	250	27.	34 people
28.	100km	29.	126
30.	6.16pm	31.	75km
32.	3 second	33.	\$112.00
34.	(2d+12)	35.	2 : 15
36.	$\frac{3}{4} - \frac{2}{5}$ $\frac{15}{20} - \frac{8}{20} = \frac{7}{20}$ $\frac{7}{20} - \frac{5}{20} = \frac{2}{20}$ $= \frac{1}{10} \quad (\text{Ans})$	37.	$h + h + 6 + 6 = 2h + 9$ $= \frac{2h+9}{3}$ $= (h + 3) \quad (\text{Ans})$

38.	$\angle PQS = 70^\circ$ $\angle TSQ = 180^\circ - 70^\circ = 110^\circ$ $= 110^\circ + 70^\circ + 120^\circ$ $= 300^\circ$ $= 300^\circ \div 2 = 150^\circ$	39.	$C : S$ $2 : 5$ $4 : 10$ $10u = 60$ $3u = 18 \text{ chocolates}$
40.	$9u - 7u = 2u$ $1u = 6 + 3$ $= 9$ $7u = 9 \times 7$ $= 63$ $= 63 + 3$ $= \underline{66 \text{ mangoes}} \text{ (Ans)}$	41.	$(95 + 65) \text{ km/hr} = 160 \text{ km/hr}$ $\text{Time} = 680 \div 160$ $= 4 \text{ hrs } 15 \text{ min}$ $\text{From } 0930 \text{ to } 0415 \text{ hr}$ $= \underline{1.45 \text{ pm}} \text{ (Ans)}$
42a.	$63 - 3 + 3 = 63$ $9u = 63$ $2u = 14$ $= 14 + 3 = 17 \text{ marbles (Ans)}$	43.	<b>Different between January and March</b> $(100 - 10)5 = 90\%$ $\text{February} = 100 + 20\% = 120\%$ $= (90 \div 100) \times 120$ $= 108\%$  $\text{March} = 108\% \quad \text{January} = 100\%$ $(108 - 100)\% = 8\%$ $8\% = \$6800$ $= \$ (6800 \div 8) \times 12\%$ $= \underline{\$10200.00} \text{ (Ans)}$
42b.	$14 - 3 = 11 \text{ marbles (Ans)}$		
42c,	$4u = 7 \times 4$ $= 28 \text{ marbles (Ans)}$		
44.	$E : F ; G$ $3 : 5 : 10$ $10 - 3 = 7$ $7u = 91$ $18u = 18 \times 13$  $= 234$  $= 234 \times \$15.00$  $= \underline{\$3510.00} \text{ (Ans)}$	45.	$6 \times 6 = 36$ $36 + 6 = 42$ $3u = 42$ $1u = 14$ $14 \div 10 = 1.4 \left(1\frac{2}{5}\right)$  $1\frac{2}{5} - 1 = \frac{2}{5}$ $\frac{2}{5} = \$3.00$  $\frac{5}{5} = \$7.50$  $1u = \$7.50$ $6u = 7.50 \times 6$ $= \underline{\$45.00} \text{ (Ans)}$

