



RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 2 2009

Name: _____ () Class: P4__

Oct 2009 MATHEMATICS Att: 1 h 45 min

Your Score Out of 100 marks		
	Class	Level
Highest score		
Average score		
Parent's Signature		

SECTION A (25 marks)

Questions 1 to 5 carry 1 mark each.

Questions 6 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 your answer (1, 2, 3 or 4) on the OAS provided.

1. The value of the digit 3 in 31 856 is _____.

- (1) 30 thousandths
- (2) 30 hundreds
- (3) 30 thousands
- (4) 31 thousands

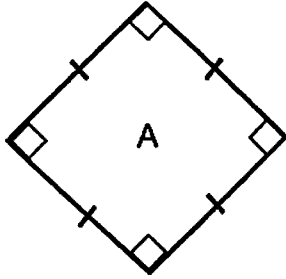
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2. In which of the following are the numbers arranged from the smallest to the greatest?

- (1) *(smallest)* 94 305 , 93 504 , *(greatest)* 93 405
- (2) 93 405 , 93 504 , 94 305
- (3) 93 504 , 94 305 , 93 405
- (4) 94 305 , 93 405 , 93 504

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3. Figure A is a square of area 64 cm^2 . Find the length of each side of the square.



- (1) 8 cm
- (2) 16 cm
- (3) 32 cm
- (4) 256 cm

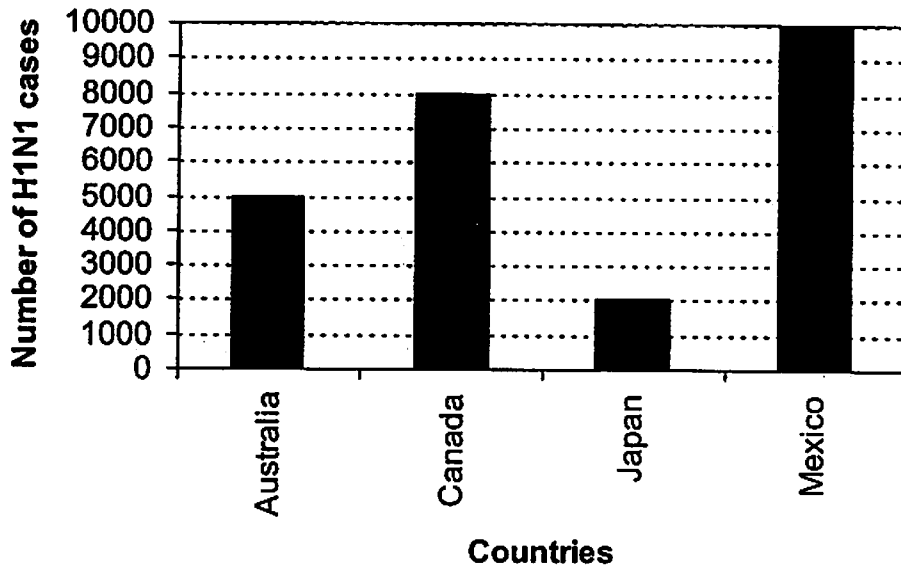
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4. Raju goes to school at 6.50 a.m. in the morning. If he takes 25 minutes to walk to school, what time will he arrive in school?

- (1) 6.25 a.m.
- (2) 7.05 a.m.
- (3) 7.10 a.m.
- (4) 7.15 a.m.

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5. The bar graph below shows the number of H1N1 cases in some countries.



Which country has half as many cases as another country?

- (1) Australia
- (2) Canada
- (3) Japan
- (4) Mexico

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6. Reese bought 3 boxes of cereal for \$17.55. How much did each box of cereal cost?

- (1) \$5.65
- (2) \$5.75
- (3) \$5.85
- (4) \$5.95

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6

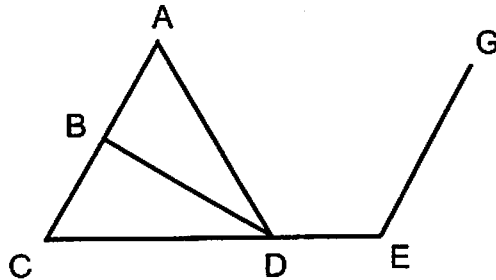
7. What is the missing number in the box?

$$9\frac{7}{9} = \frac{\square}{9}$$

- (1) 63
- (2) 74
- (3) 81
- (4) 88

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8. One of the lines in the figure is parallel to AC. Which line is parallel to AC?



- (1) AD
- (2) BD
- (3) CE
- (4) GE

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9. Which of the following fractions is in its simplest form?

- (1) $\frac{5}{10}$
- (2) $\frac{7}{10}$
- (3) $\frac{8}{12}$
- (4) $\frac{3}{9}$

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10. What is the number when 356.84 is rounded off to 1 decimal place?

- (1) 356.0
- (2) 356.8
- (3) 356.9
- (4) 357.0

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11. $390 \times 20 =$ _____

- (1) 410
- (2) 780
- (3) 6800
- (4) 7800

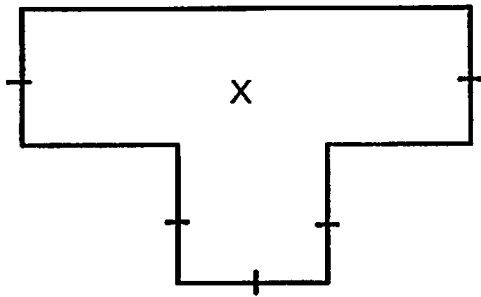
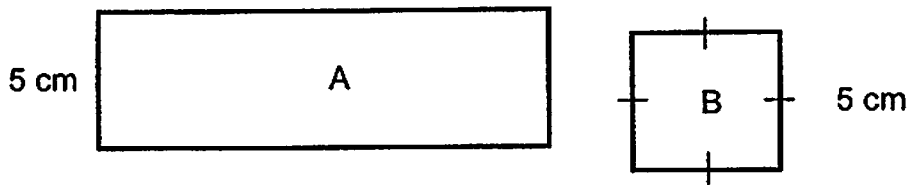
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12. There are 64 apples in a carton. If one carton of apples costs \$48, how much does 1 dozen of apples cost?

- (1) \$0.75
- (2) \$6.00
- (3) \$7.50
- (4) \$9.00

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13. Figure X is made up of a rectangle A and a square B of side 5 cm. The length of the rectangle is the same as the perimeter of square B. The breadth of rectangle A is 5 cm. Find the perimeter of figure X.



- (1) 55 cm
- (2) 60 cm
- (3) 70 cm
- (4) 80 cm

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14. The table below shows the number of plates of mee goreng and nasi lemak sold in the canteen last week.

Day	Number of plates		Total amount collected
	mee goreng	nasi lemak	
Monday	150	850	\$500
Tuesday	250	750	\$500
Wednesday		?	\$600
Thursday	450	550	\$500
Friday	550	450	\$500

A plate of mee goreng and nasi lemak costs \$0.50 each. On Wednesday, the number of plates of mee goreng sold was thrice the number of plates of nasi lemak sold. How many plates of nasi lemak were sold on Wednesday?

- (1) 800
- (2) 900
- (3) 300
- (4) 400

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15. Ahmad took 40 minutes to clean his room. His sister took twice as much time as Ahmad. What is the total amount of time taken by Ahmad and his sister to clean their rooms?

- (1) 42 min
- (2) 60 min
- (3) 80 min
- (4) 120 min

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End of Section A



SECTION B (40 marks)

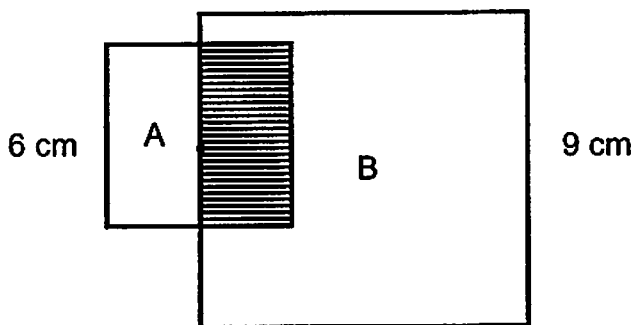
Questions 16 to 35 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions must be expressed in the simplest form. Marks will be awarded for relevant working.

16. Fill in the blank with the correct number in the number pattern below.

51 936, _____, 51 923, 51 918, 51 914, 51911

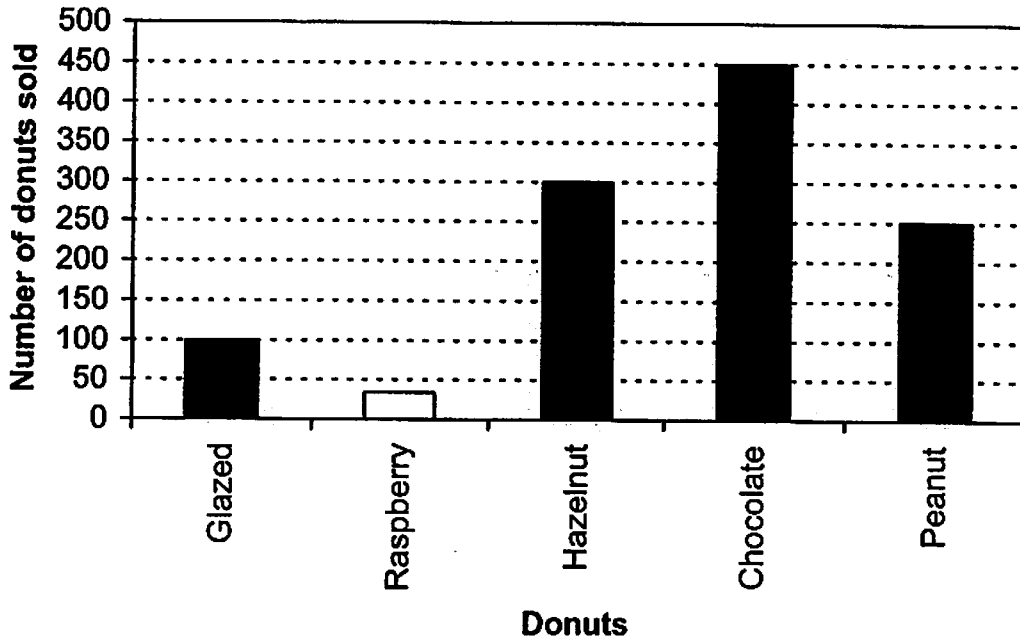
Ans: _____

17. The figure below is made up of 2 squares, A and B. The length of Square A is 6 cm. The length of Square B is 9 cm. Half of square A is shaded. Find the area of the unshaded figure.



Ans: _____ cm²

18. The graph below shows the number of donuts sold in a day.



The sale of chocolate donuts was 3 times that of raspberry donuts. Complete the graph above.

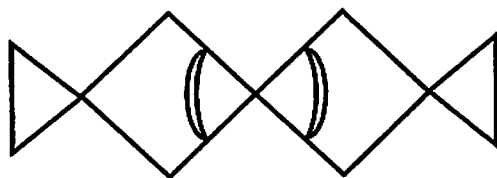
19. The length of a toothpick is 3 cm.
Ali formed a square of perimeter 72 cm.
How many toothpicks are used to form a side of the square?

Ans: _____

20. Write $\frac{60}{9}$ as a mixed number in its simplest form.

Ans: _____

21. Draw the 2 lines of symmetry on the following figure.



22. Arrange the following from the smallest to the greatest.

$$\frac{3}{4}, \frac{2}{3}, \frac{5}{12}$$

Ans: _____, _____, _____,
(smallest) (greatest)

23. Form the greatest 4-digit number from the numbers given below.
Each number can only be used once.

0 1 5 9

Ans: _____

24. $6591 - 4578 =$ _____

Ans: _____

25. $\frac{7}{12} - \frac{1}{2} =$ _____

Ans: _____

26. Round off 87 995 to the nearest ten.

Ans: _____

27. What is the first common multiple of 6 and 8?

Ans: _____

28. There was an equal number of males and females when a train left Paya Lebar Station for Farrer Station. At Farrer Station, 12 males got off the train and 6 females boarded the train. When the train left Farrer Station,
- were there more females or more males on the train?
 - how many more?

Ans: a) _____ [1]

b) _____ [1]

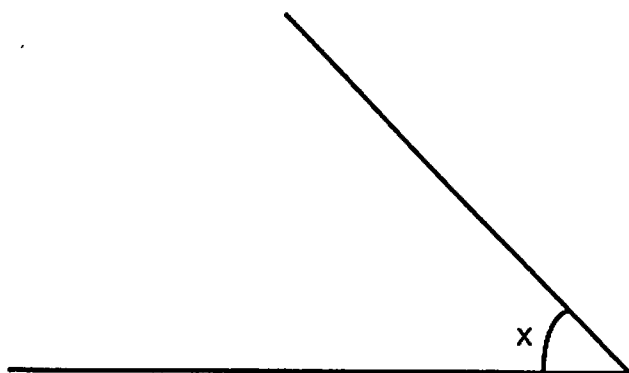
29. The capacity of a fish tank is 6l 650 ml. Hafiz fills half of 3 such fish tanks. What is the total volume of the water in the fish tanks?

Ans: _____ l _____ ml

30. Sumei takes 1 hour 24 minutes to reach home from work by bus. If she takes a taxi, she could reach home in a quarter of the time taken by the bus. How much longer is her travelling time by bus?

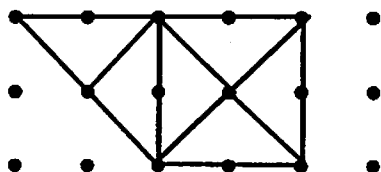
Ans: _____ min

31. Measure and write down the size of angle x.



Ans: _____

32. Tessellate 2 more unit shapes to extend the tessellation.



33. Find the value of 27.39×5 .

Ans: _____

34. Melinda is 7 years younger than Kathy. 7 years ago, their total age was 71.
How old is Melinda now?

Ans: _____ years old

35. A handbag costs 4 times as much as a wallet. If the handbag and 5 similar wallets cost \$80.55, how much does the handbag cost?

Ans: \$ _____

End of Section B

SECTION C (35 marks)

For questions 36 to 44, show your working clearly in the space provided below each question and write your answer with suitable units in the spaces provided.

All diagrams are not drawn to scale.

Answers in fractions must be expressed in the simplest form.

Marks will be awarded for relevant working.

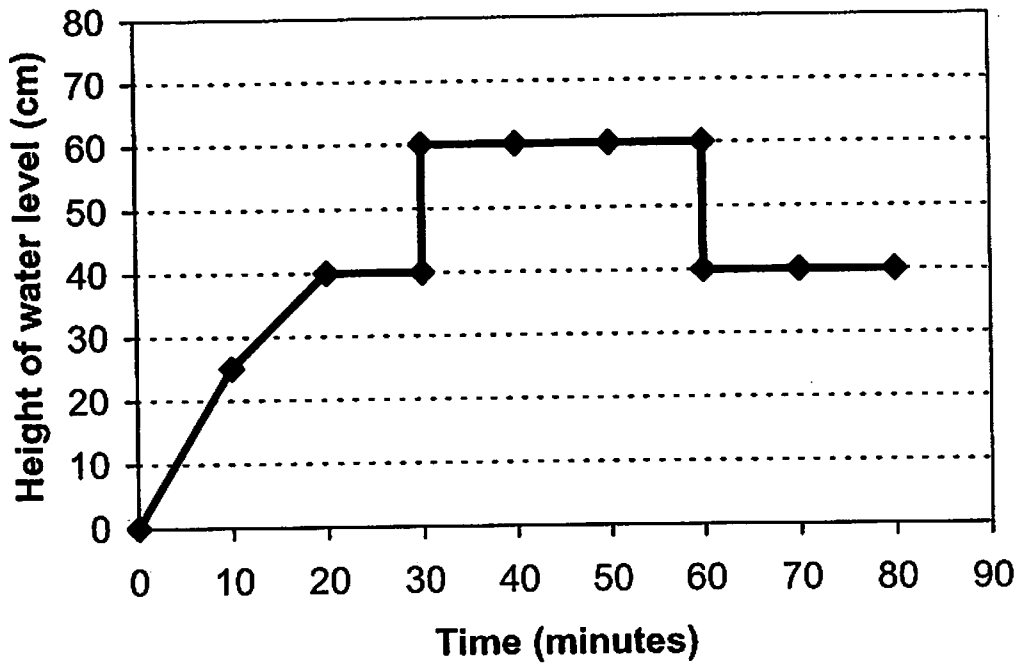
The number of marks available is shown in brackets [] at the end of each question or part-question.

36. Julie had 708 cartons of milk in her bakery last week. However, 63 cartons of milk had expired and had to be thrown away.
- a) How many cartons of milk were left?
 - b) If Julie baked only on weekdays, and the same amount of milk was used each day, how many cartons of milk were used each day?

Ans: (a) _____ [1]

(b) _____ [2]

37. The line graph below shows the amount of water in a tank over a period of time. Study the graph carefully and answer the questions that follow.



- How long did it take to half-fill the tank if the height of the tank was 80 cm?
- 10 minutes after the tank was half-filled, a weight was added into the tank. What was the increase in the water level when the weight was added in?
- If the water level remained the same for as long as the weight was in the tank, how long was the weight inside the tank?

Ans: a) _____ [1]

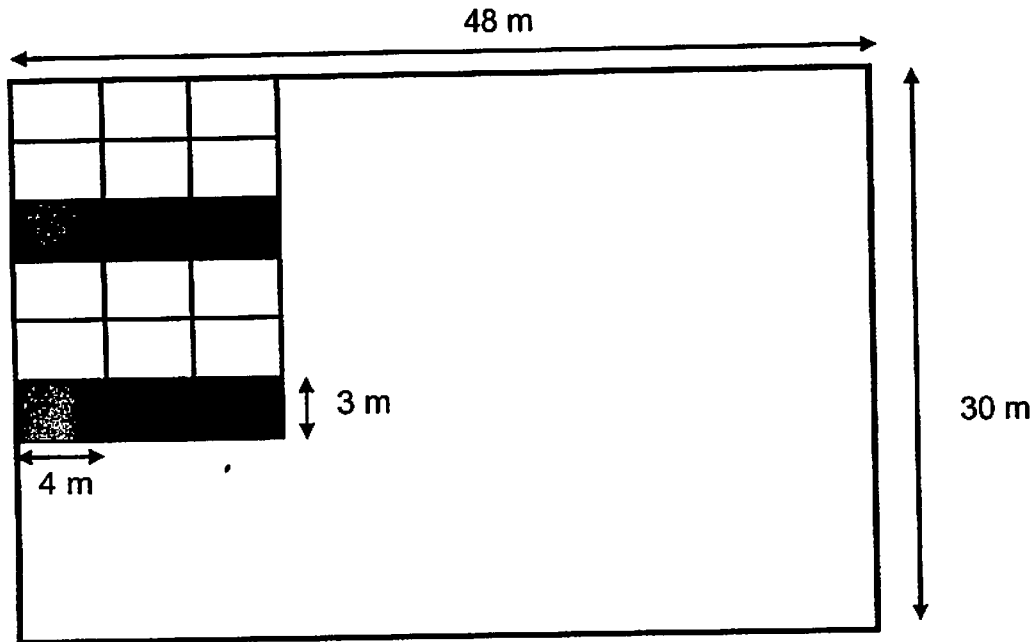
b) _____ [1]

c) _____ [1]

38. Ali had some orange juice. He sold 4.25 litres of it and kept half of the remainder. The other half was divided equally among his 3 friends. Each friend received 1.75 litres of orange juice. How much orange juice did Ali have at first?

Ans: _____ [3]

39. Mr Tan has a rectangular backyard measuring 48 m by 30 m. He wants to fill it with black and white rectangular tiles as shown below. Each tile measures 4 m by 3 m. What is the area of his backyard that will be covered by black tiles?



Ans: _____ [4]

40. Nicole had \$567. $\frac{2}{9}$ of her money was spent on clothes, and the remainder was shared equally among her 3 children.
- (a) How much did Nicole spend on clothes?
- (b) How much did each child receive?

Ans: (a) _____ [2]

(b) _____ [2]

41. The total cost of 5 rulers and 2 notepads was \$18. If 2 notepads cost as much as 5 rulers, what was the cost of 5 notepads?

Ans: _____ [4]

42. The total weight of a teddy bear and a doll is 3kg 500g. The total weight of a teddy bear and a toy car is 4kg 800g. If the total weight of a toy car and a doll is 5kg 650g, find the total weight of a teddy bear, a doll and a toy car.

Ans: _____ [4]

43. There are a total of 28 chickens and cows in a farm. If the total number of cows' legs is 40 more than the total number of chickens' legs, find the number of:
- a) chickens in the farm and
 - b) cows in the farm.

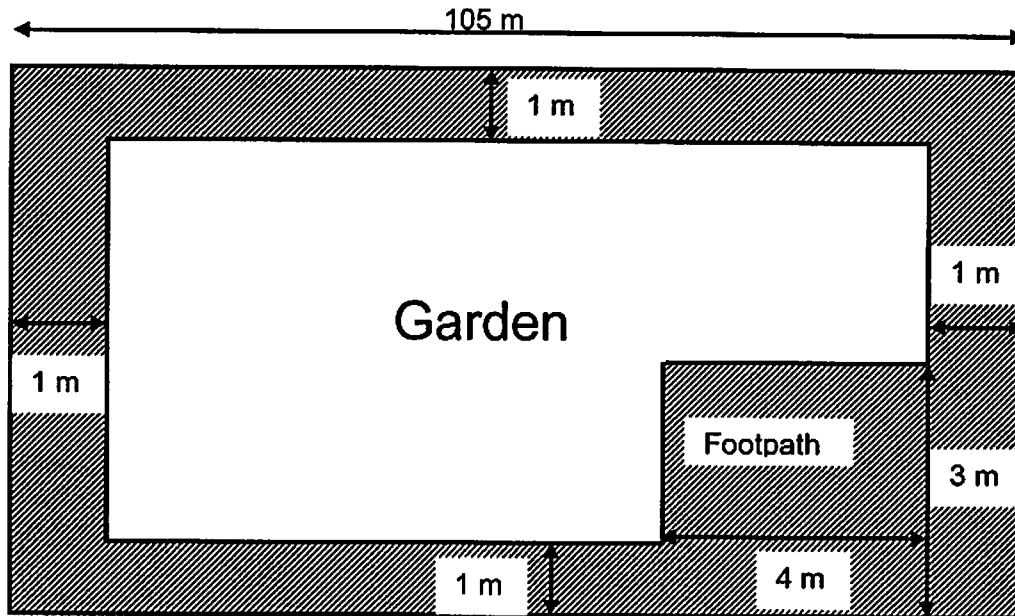
Ans: a) _____ [4]

b) _____ [1]

44. The length of a park is 105 metres. Its breadth is $\frac{5}{7}$ of its length. A garden surrounded by footpath is located in the park as shown in the diagram below.

(a) Find the perimeter of the garden.

(b) Find the area of the footpath.



Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER

Please check your work carefully ☺

Setters: Mdm Roziyana Rahmat and Mr Jonathan Teo

P4 Mathematics (SA2) Answer Key 2009

SECTION A (25 marks)

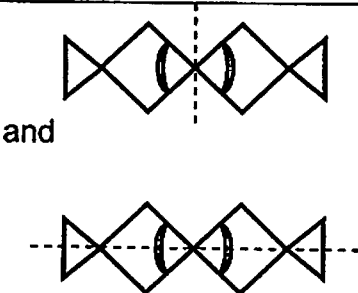
1 mark each	
Q1	3
Q2	2
Q3	1
Q4	4
Q5	1


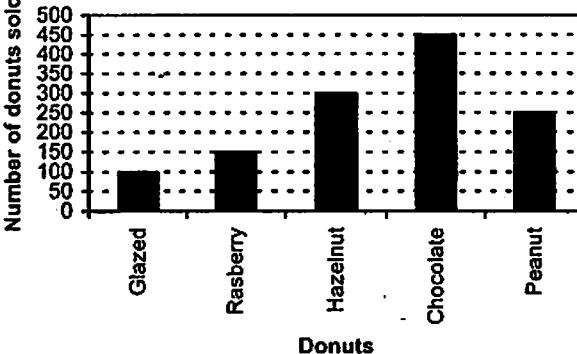
2 marks each			
Q6	3	Q11	4
Q7	4	Q12	4
Q8	4	Q13	2
Q9	2	Q14	3
Q10	2	Q15	4

SECTION B (40 marks)

Marking Method for Section B:

Correct answer, no method shown	2 marks
Wrong answer, correct method	1 mark (if method mark present)
Correct answer, wrong method	0 mark

Q16	$51936 - 7 = 51\ 929$ [M1, A1]	Q22	$\frac{5}{12}, \frac{2}{3}, \frac{3}{4}$
Q17	$9 \times 9 = 81$ [M1, A1]	Q23	9510
Q18	Refer to attachment	Q24	2013
Q19	$72 \div 4 = 18$ [M1] $18 \div 3 = 6$ [A1]	Q25	$\frac{1}{12}$
Q20	$6\frac{6}{9} = 6\frac{2}{3}$ [M1] [A1]	Q26	88 000
Q21	 <p>and</p> <p>[A1 each]</p>	Q27	Ans: 24 If pupils list down multiples of 6 and 8 correctly, award [M1]

Q28	a) Females [A1] b) 18 [A1]	Q33	136.95												
Q29	$6 \ell 650\text{ml} \times 1.5 = 9 \ell 975\text{ml}$ [M1, A1] OR $6 \ell 650\text{ml} \div 2 = 3 \ell 325 \text{ ml}$ $3 \ell 325 \text{ ml} \times 3 = 9 \ell 975\text{ml}$ [M1, A1] OR $6 \ell 650\text{ml} \times 3 = 19 \ell 950\text{ml}$ $19 \ell 950\text{ml} \div 2 = 9 \ell 975\text{ml}$ [M1, A1]	Q34	$71 + 14 = 85 = 71$ $85 - 7 = 78$ [M1] $78 \div 2 = 39$ [A1] Answer: 39 years old												
Q30	$1 \text{ h } 24 \text{ min} = 84 \text{ min}$ $84 \div 4 = 21$ [M1] $21 \times 3 = 63$ [A1] OR $1 \text{ h } 24 \text{ min} = 84 \text{ min}$ $\frac{3}{4} \times 84 = 63$ [M1, A1]	Q35	$\$80.55 \div 9 = \8.95 [M1] $\$8.95 \times 4 = \35.80 [A1]												
Q31	46° (Accept 45° and 47° too) [A2]	**Q18													
Q32	Accept any 2 unit shapes (1 mark for each correctly drawn unit shape) 	 <table border="1"> <caption>Number of donuts sold by flavor</caption> <thead> <tr> <th>Flavor</th> <th>Number of donuts sold</th> </tr> </thead> <tbody> <tr> <td>Glazed</td> <td>100</td> </tr> <tr> <td>Raspberry</td> <td>150</td> </tr> <tr> <td>Hazelnut</td> <td>300</td> </tr> <tr> <td>Chocolate</td> <td>450</td> </tr> <tr> <td>Peanut</td> <td>250</td> </tr> </tbody> </table>		Flavor	Number of donuts sold	Glazed	100	Raspberry	150	Hazelnut	300	Chocolate	450	Peanut	250
Flavor	Number of donuts sold														
Glazed	100														
Raspberry	150														
Hazelnut	300														
Chocolate	450														
Peanut	250														

SECTION C (35 marks)



Marking Method:

Correct method with correct answer	Award M1 and A1 accordingly.
Correct method with wrong answer in the intermediate steps	Award M1 accordingly. Final A1 is not awarded.
Correct answer with no method shown	Award only answer mark
Correct answer with wrong method	0 mark
Miss out standard unit in final answer or wrong units used	Overall deduct $\frac{1}{2}$ mark.
Mathematically incorrect statement and wrong use of equal sign	Overall deduct $\frac{1}{2}$ mark. (for 4 & 5 marks questions only)
Misread number and use it consistently to solve the problem with correct method	Deduct M1 from any method. Final A1 is not awarded.

	Solutions	Remarks
Q36	(a) $708 - 63 = 645$ [M1] (b) $645 \div 5$ [M1] = 129 [A1]	
Q37	(a) 20 min / 20 minutes [A1] (b) 20 cm [A1] (c) 30 min / 30 minutes [A1]	

	Solutions	Remarks
Q38	$1.75 \times 3 = 5.25^*$ $5.25^* \times 2 = 10.5$ [M1] OR $1.75 \times 6 = 10.5$ [M1] $10.5 + 4.25 = 14.75$ [M1,A1]	*follow through for any computation error
Q39	$48 \div 4 = 12$ $4 \times 3 = 12$ [M1] $12 \times 12 = 144$ [M1] $144 \times 3 = 432$ [M1, A1] OR $48 \div 4 = 12$ $4 \times 3 = 12$ [M1] $12 \times 3 = 36$ [M1] $36 \times 12 = 432$ [M1, A1] OR If pupils draw and count number of black tiles correctly, award [M2] $36 \times 12 = 432$ [M1, A1]	

	Solutions	Remarks
Q40	<p><u>WORKING</u></p> <p>(a)</p> <p>9 units → 567</p> <p>1 unit → $567 \div 9 = 63$</p> <p>2 units → 63×2 [M1]</p> <p style="padding-left: 100px;">= 126 [A1]</p> <p>She spent \$126.</p> <p>or:</p> <p>$567 \times 2 = 1134$</p> <p>$1134 \div 9$ [M1]</p> <p>= 126 [A1]</p> <p>She spent \$126.</p> <p>(b)</p> <p>$567 - 126 = 441$</p> <p>$441 \div 3$ [M1]</p> <p>= 147 [A1]</p> <p>Each child received \$147.</p>	

	Solutions	Remarks
Q41	<p data-bbox="268 389 347 421">Rulers</p>  <p data-bbox="268 533 389 564">Notepads</p>  <p data-bbox="865 456 919 488">\$18</p> <p data-bbox="236 685 606 725">$\\$18 \div 10 = \\1.80 [M1]</p> <p data-bbox="236 761 536 801">Cost of 1 notepad</p> <p data-bbox="236 837 692 909">$= (\\$1.80 \times 2) + \left(\frac{1}{2} \times \\$1.80\right)$</p> <p data-bbox="236 949 450 990">$= \\$4.50$ [M1]</p> <p data-bbox="236 1021 896 1061">Cost of 5 notepads = $\\$4.50 \times 5$ [M1]</p> <p data-bbox="625 1093 852 1133">$= \\$22.50$ [A1]</p> <p data-bbox="236 1182 284 1214">or:</p> <p data-bbox="236 1249 759 1290">Cost of 5 rulers or 2 notepads:</p> <p data-bbox="236 1326 542 1366">$\\$18 \div 2 = \\9 (M1)</p> <p data-bbox="236 1402 542 1442">Cost of 1 notepad</p> <p data-bbox="236 1478 574 1518">$\\$9 \div 2 = \\4.50 (M1)</p> <p data-bbox="236 1554 903 1594">Cost of 5 notepads = $\\$4.50 \times 5$ [M1]</p> <p data-bbox="625 1626 858 1666">$= \\$22.50$ [A1]</p>	

	Solutions	Remarks
Q42	<p>(Total weight of 2 B, 1 D and 1C)</p> $3\text{kg } 500\text{ g} + 4\text{ kg } 800\text{ g} = 8\text{kg } 300\text{g} \quad [\text{M1}]$ <p>(Total weight of 2 B)</p> $8\text{kg } 300\text{ g} - 5\text{kg } 650\text{g} = 2\text{ kg } 650\text{g} \quad [\text{M1}]$ <p>(Weight of 1 B)</p> $2\text{kg } 650\text{g} / 2 = 1\text{kg } 325\text{g}$ <p>(Weight of B, D and C)</p> $1\text{ kg } 325\text{g} + 5\text{kg } 650\text{g} = 6\text{kg } 975\text{g}$ <p style="text-align: center;">[M1] [A1]</p>	

	Solutions	Remarks												
Q43	<p data-bbox="165 255 555 291">Heuristic: Make a table</p> <table border="1" data-bbox="165 295 858 698"> <thead> <tr> <th data-bbox="165 295 402 398">cows' legs</th> <th data-bbox="402 295 632 398">chickens' legs</th> <th data-bbox="632 295 858 398">Difference</th> </tr> </thead> <tbody> <tr> <td data-bbox="165 398 402 501">$13 \times 4 = 52$</td> <td data-bbox="402 398 632 501">$15 \times 2 = 30$</td> <td data-bbox="632 398 858 501">$52 - 30 = 22$</td> </tr> <tr> <td data-bbox="165 501 402 604">$15 \times 4 = 60$</td> <td data-bbox="402 501 632 604">$13 \times 2 = 26$</td> <td data-bbox="632 501 858 604">$60 - 26 = 34$</td> </tr> <tr> <td data-bbox="165 604 402 698">$16 \times 4 = 64$</td> <td data-bbox="402 604 632 698">$12 \times 2 = 24$</td> <td data-bbox="632 604 858 698">$64 - 24 = 40$</td> </tr> </tbody> </table> <p data-bbox="165 757 220 792">or:</p> <p data-bbox="165 851 450 990"> $16 \times 4 = 64$ [M1] $12 \times 2 = 24$ [M1] $64 - 24 = 40$ [M1] </p> <p data-bbox="165 1048 450 1137"> 12 chickens [A1] 16 cows [A1] </p> <p data-bbox="165 1196 497 1384"> Or: $28 \times 4 = 112$ [M1] $112 - 40 = 72$ [M1] $72 / 6 = 12$ [M1] </p> <p data-bbox="165 1442 450 1532"> 12 chickens [A1] 16 cows [A1] </p> <p data-bbox="165 1590 481 1877"> Or: $28 \times 2 = 56$ [M1] $56 + 40 = 96$ [M1] $96 / 6 = 16$ [M1] 12 chickens [A1] 16 cows [A1] </p>	cows' legs	chickens' legs	Difference	$13 \times 4 = 52$	$15 \times 2 = 30$	$52 - 30 = 22$	$15 \times 4 = 60$	$13 \times 2 = 26$	$60 - 26 = 34$	$16 \times 4 = 64$	$12 \times 2 = 24$	$64 - 24 = 40$	<p data-bbox="884 246 1273 336"><u>Marking for Guess and Check</u></p> <p data-bbox="884 371 1168 407">Correct start: M1</p> <p data-bbox="884 448 1241 537">Reach correct stage: M2</p> <p data-bbox="884 573 1216 609">Correct answer: A1</p>
cows' legs	chickens' legs	Difference												
$13 \times 4 = 52$	$15 \times 2 = 30$	$52 - 30 = 22$												
$15 \times 4 = 60$	$13 \times 2 = 26$	$60 - 26 = 34$												
$16 \times 4 = 64$	$12 \times 2 = 24$	$64 - 24 = 40$												

	Solutions	Remarks
Q44	<p>a) $105 - 1 - 1 = 103$</p> <p>$105 / 7 = 15$</p> <p>$15 \times 5 = 75$</p> <p>$75 - 1 - 1 = 73$</p> <p>$103 \times 2 + 73 \times 2 = 206 + 146 = 352$</p> <p style="text-align: center;">[M1] [A1]</p> <p>OR</p> <p>$105 / 7 = 15$</p> <p>$15 \times 5 = 75$</p> <p>$75 - 1 - 1 = 73$</p> <p>$105 - 1 - 1 = 103$</p> <p>$103 + 103 + 73 + 73 = 352$</p> <p style="text-align: center;">[M1] [A1]</p>	

	Solutions	Remarks
	<p>b)</p> $105 \times 75 = 7875$ $103 \times 73 = 7519$ $2 \times 4 = 8$ $7875 - 7519 = 356$ <p>[M1]</p> $356 + 8 = 364 \text{ [M1, A1]}$ <p>OR</p> $105 \times 2 = 210$ $73 \times 2 = 146$ $2 \times 4 = 8$ $210 + 146 = 356 \text{ [M1]}$ $356 + 8 = 364 \text{ [M1, A1]}$	