

Name : _____ ()
Class : Primary 6 (S) / C / G / SE / P

Date : _____
Time : 2 h 15 min

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2008

PRIMARY 6

MATHEMATICS

BOOKLET A

15 Questions

20 Marks

Total Time For Booklets A and B : 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

Booklet A (20 marks)

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.

1. 576 842 is _____ when rounded off to the nearest hundred.

- (1) 576 000
- (2) 576 800
- (3) 576 900
- (4) 577 000

2. What is 3 tenths less than 1324.87?

- (1) 1024.87
- (2) 1321.87
- (3) 1324.57
- (4) 1324.84

3. What is the missing number in the box?

$$\frac{5}{13} + \frac{7}{13} - \frac{4}{13} = \boxed{} \times \frac{2}{13}$$

- (1) 6
- (2) 2
- (3) 8
- (4) 4

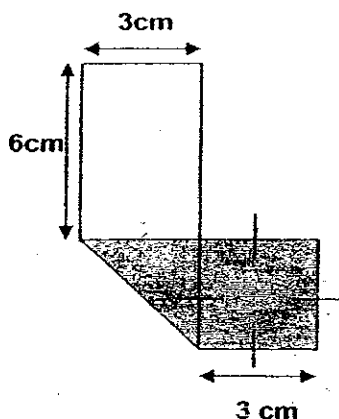
4. Which one of the following number when divided by 7 gives a remainder of 2?

- (1) 141
- (2) 213
- (3) 492
- (4) 560

5. Tony has some coins. He has twice as many 20-cent coins as 50-cent coins and the remainder are 10-cent coins. He has a total amount of \$7.80. If he has fourteen 20-cent coins, how many 10-cent coins does he have?

- (1) 10
- (2) 13
- (3) 15
- (4) 17

6. A rectangular piece of paper, coloured on one side, is folded to form the shape shown below. What is the area of the rectangular piece of paper before it was folded?

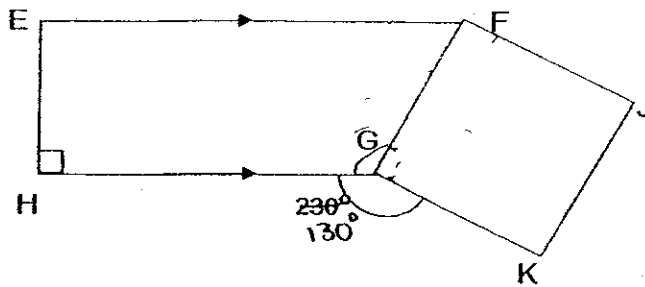


- (1) 18 cm²
- (2) 27 cm²
- (3) 36 cm²
- (4) 45 cm²

7. The breadth of a rectangle is $\frac{1}{3}$ of its length. If the perimeter is 56 cm, what is its length?

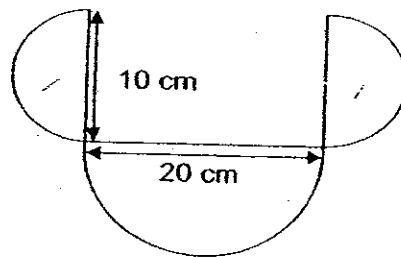
- (1) 7 cm
- (2) 8 cm
- (3) 14 cm
- (4) 21 cm

8. In the figure not drawn to scale, EFGH is a trapezium, $\angle HGK$ is 130° and FJKG is a square. Find $\angle GFE$



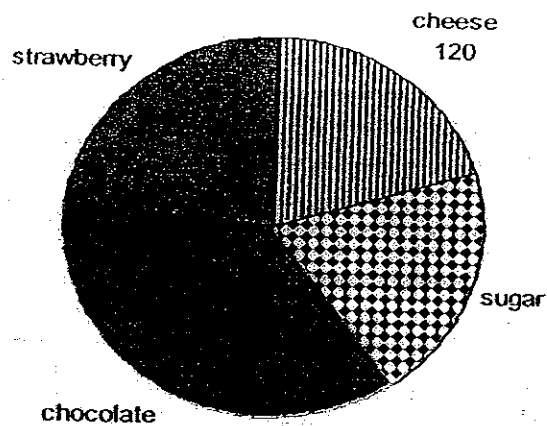
- (1) 20°
 (2) 30°
 (3) 40°
 (4) 50°
9. The total mass of Sarah, Rachel and Emma is 119kg. If the average mass of Sarah and Emma is 40kg, what is the mass of Rachel?
- (1) 38 kg
 (2) 39 kg
 (3) 42 kg
 (4) 80 kg
10. Mary is k years old. Lynn is 3 times as old as Mary and Clare is 4 years younger than Lynn. How old is Clare?
- (1) $(4k + 3)$ years
 (2) $(4k - 3)$ years
 (3) $(3k + 4)$ years
 (4) $(3k - 4)$ years
11. Roy's pocket money is $\frac{2}{3}$ of his brother's pocket money. If the sum of their pocket money is \$20, how much is his brother's pocket money?
- (1) \$8
 (2) \$12
 (3) \$16
 (4) \$4

12. The figure is made up of a semicircle with 2 small semi circles of the same size. Find the area of the figure. (Take $\pi = 3.14$)



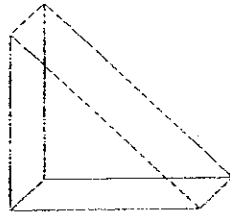
- (1) 78.5 cm^2
 (2) 157 cm^2
 (3) 235.5 cm^2
 (4) 392.5 cm^2

13. The pie chart shows the number of donuts sold a day. The same number of cheese flavoured donuts and sugared donuts were sold. The total number of chocolate and strawberry donuts sold was $\frac{3}{5}$ the total number of donuts sold for the day. How many donuts were sold?

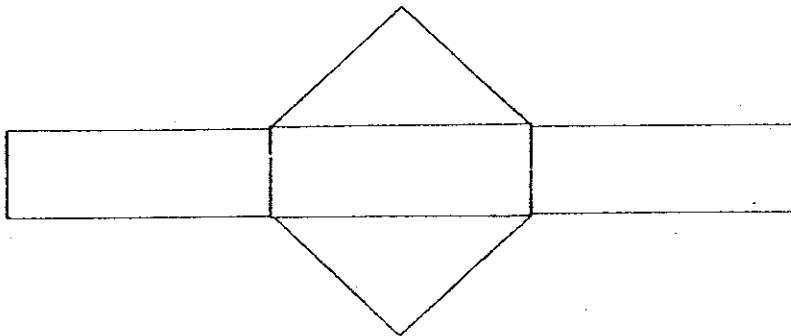


- (1) 240
 (2) 360
 (3) 480
 (4) 600

14. The figure shows a solid. Which of the following is a net of the solid?



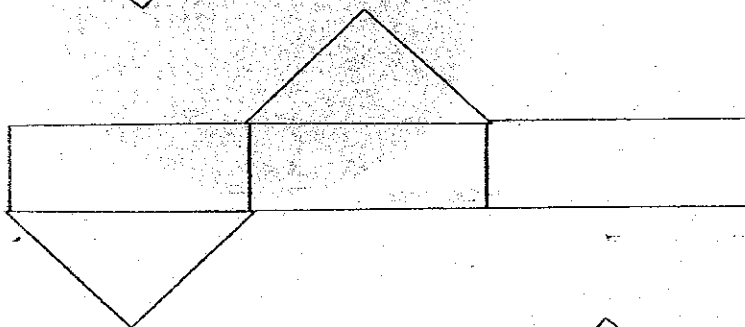
(1)



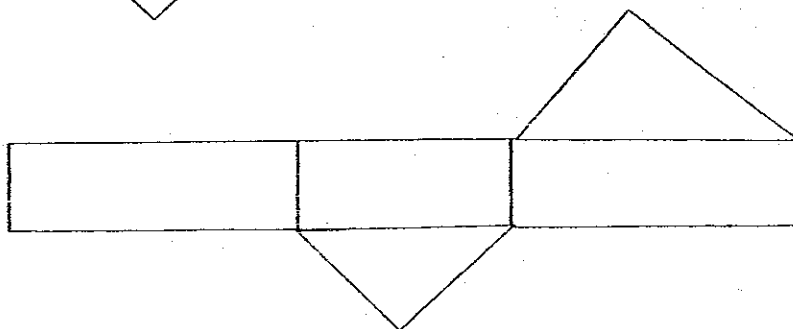
(2)



(3)



(4)



15. I paid \$645 for a camera after a discount of 25%. What was the original price of the camera?

- (1) \$680
- (2) \$780
- (3) \$860
- (4) \$870

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SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2008

PRIMARY 6

MATHEMATICS

BOOKLET B

33 Questions

80 Marks

Total Time For Booklets A and B : 2 h 15 min

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

**FOLLOW ALL INSTRUCTIONS CAREFULLY.
ANSWER ALL QUESTIONS**

Name : _____ ()

Class : Primary 6 SY/C/G/SE/P

Duration : 2 h 15 min

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Booklet B (80 marks)

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. $14 \times 66 = \underline{\hspace{2cm}} \times 9 + (66 \times 5)$

Ans: _____

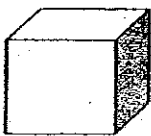
17. Express 17 quarters as a decimal.

Ans: _____

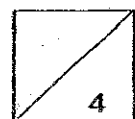
18. Find the common multiple of 7 and 4 that is greater than 40 but smaller than 60.

Ans: _____

19. The total length of the edges of a cube is 84 cm. Find the height of the cube.



Ans: _____ cm

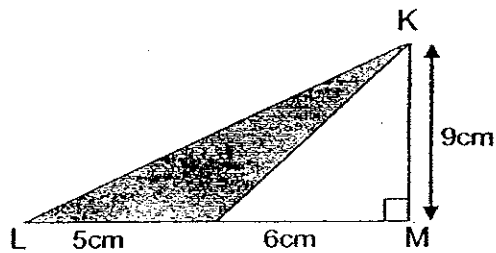


20. A pencil case costs \$7.55. Ali has \$22. How many pencil cases can he buy?

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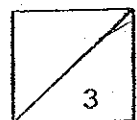
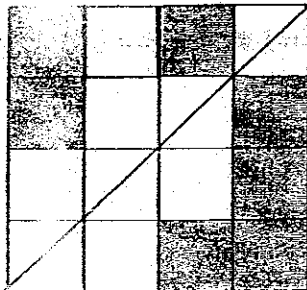
Ans: _____

21. Find the area of the shaded part in the figure below.



Ans: _____ cm²

22. Study the figure below. Shade a unit square to make the figure symmetrical.



23. Mrs Ho was driving at an average speed of 88km/h. How far did she go in 15 minutes?

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in this column

Ans: _____ km

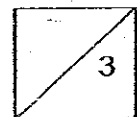
24. The table below shows the rates for making a long distance telephone call. If Mei Ling made a call which lasted 7 minutes, what was the cost of the call?

First block of 3 minutes	\$10
Every additional minute or part thereof	\$2

Ans: \$ _____

25. In a fruit stall, there are twice as many apples as oranges and three times as many oranges as pears. What is the ratio of the number of apples to the number of oranges to the number of pears?

Ans: _____



Questions 26 to 35 carry 2 marks each.

Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20marks)

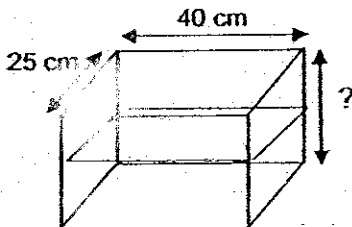
26. Mrs Ng spent $\frac{1}{8}$ of her money on transport and $\frac{2}{7}$ of the remainder on food. If she spent \$240 on food, how much money does she have at first?

Ans: \$ _____

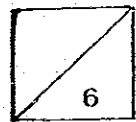
27. After Andy had given 60 cards to Roy, they had an equal number of cards. What was the difference between their original number of cards?

Ans: _____

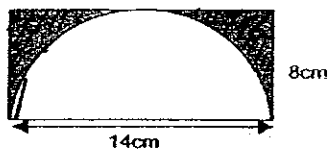
28. A rectangular tank measuring 40 cm long and 25 cm wide is half full with 11l of water. Find the height of the tank.



Ans: _____



29. The figure below is made up of a rectangle and a semicircle. Find the shaded area. (Take $\pi = \frac{22}{7}$)



Do not write
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Ans: _____ cm^2

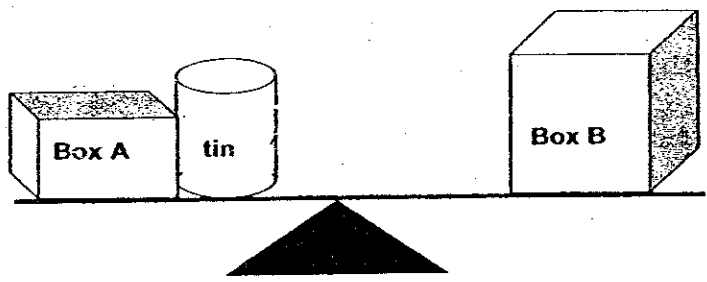
30. Evan's clock slows down by 6 minutes every 1 hour. If the time is 9 am now, what time will the clock show 7 hours later?

Ans: _____ pm



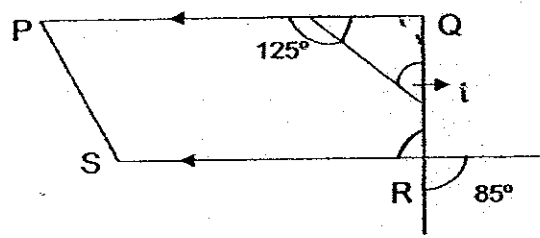
31. Box A has a mass twice as much as the tin. The tin has a mass of 0.75 kg. What is the mass of Box B?

Do not write in this column

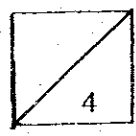


Ans: _____ kg

32. In the figure below, not drawn to scale, find the value of $\angle t$.



Ans: _____ °



33. Mr Boh drove from his home to the city at 60km/h. He reached the city in 40min. If his new speed was 80km/h, how long would he take to reach the city?

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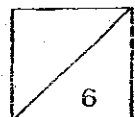
Ans: _____^h
km/h

34. Water flows from a tap at 20ℓ every 5 min. At this rate, how much water was ~~was~~ there in a pail after 2 hrs 5 min?

Ans: _____ ℓ

35. There are 200 children in the hall. 140 of them are girls. If 80 more boys come into the hall, what percentage of the children in the hall are girls?

Ans: _____ %



Name : _____ ()

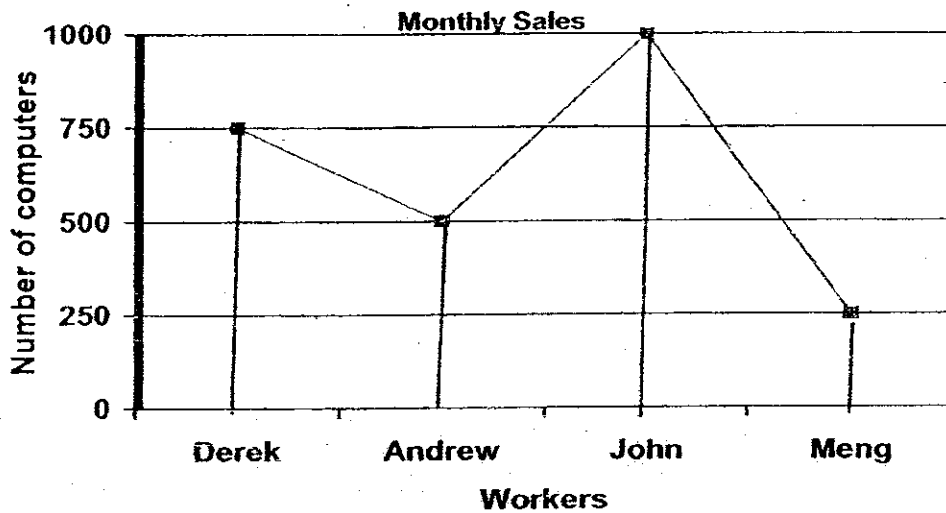
Class : Primary 6 SYICIGISEIP

Time : 2 h 15 min

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Write your answers to questions 36 to 48 in the spaces provided.
For each question, show your working clearly in the space provided.
The number of marks available is shown in brackets at the end of each question or part-question.

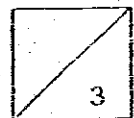
The line graph shows the number of computers sold by 4 salesmen in a month. Study the graph and answer the following questions.



- 36(a) How many computers did John sold more than Derek?
- (b) Express the number of computers sold by Andrew and Meng as a fraction to the total number of computers sold.

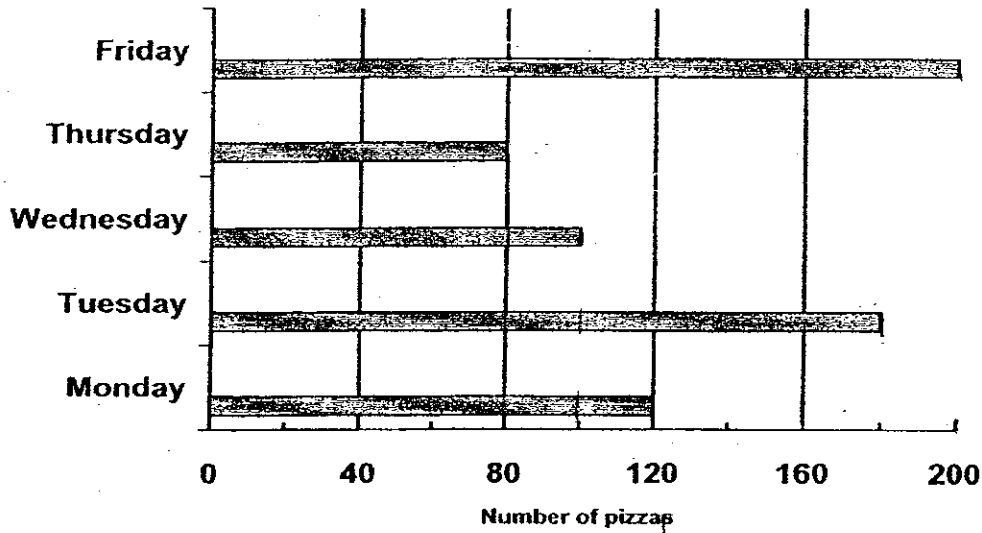
Ans: (a) _____ (1)

(b) _____ (2)



The graph shows the number of pizzas sold at a canteen in five days.

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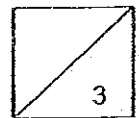


37(a) The numbers of pizzas sold on Wednesday was half the number sold on _____.

(b) If each pizza was sold at \$0.80, how much did the stall-holder collect for the five days?

Ans: (a) _____ (1)

(b) _____ (2)

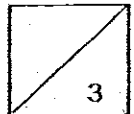


38. Draw a rhombus ABCD of side 7cm and $\angle ABC = 60^\circ$ (2 marks)
In the figure you have drawn, draw a line from A to C.
How long is AC? (1 mark)

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in this column

A _____ B (2 marks)

Ans: _____ (1)



39. The ratio of Father's mass to Mother's mass is 5:2. If Father's mass decreased by 20%, by what percentage should Mother's mass be increased so that their total mass is the same as before?

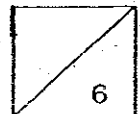
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Ans: _____ (3)

40. The breadth of a rectangle is $2h$ cm. Its length is 3 times its breadth. Express the length and perimeter of the rectangle in terms of h in its simplest form.

Ans: Length - _____ (1)

Perimeter - _____ (2)



41. Six teams compete in a netball tournament. The teams are A, B, C, D and E. Each team will play against every other team once. How many matches are there?

Do not write
in this column

Ans: _____ (3)

42. Nathan saved one 20-cent coin on the first day. The next day he put aside two more 20-cent coins as his savings. Each day he saved two 20-cent coins more than the previous day.

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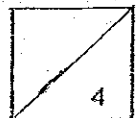
(a) Complete the following table.

Day	Number of coins saved each day	Total number of coins
1	1	1
2	3	4
3		
4		
5		
6		

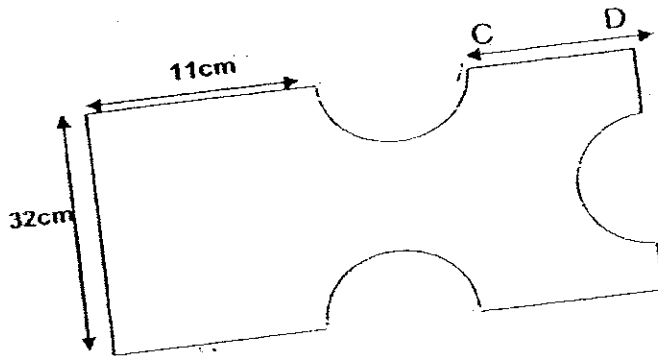
(2 marks)

- (b) How many days did Nathan take to save 121 coins?

Ans: (b) _____ (2)



43. Mother cut out 3 identical semi-circles from a piece of rectangular cardboard as shown below. The perimeter of the figure shown below is 126 cm and the diameter of each semicircle is 7 cm. What is the length of CD? (Take $\pi = \frac{22}{7}$) The figure below is not drawn to scale.



Do not write
in this column

Ans: _____ (4)

44. There were 660 cows and goats in a farm. $\frac{1}{6}$ of the cows and $\frac{1}{3}$ of the goats were male. The rest were female. If a total of 140 cows and goats were male, how many cows were in the farm?

Do not write
in this column

Ans: _____ (4)



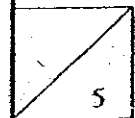
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45. Andrea has some money. After spending \$100 on 3 bags and 7 belts, she is short of \$4 if she wants to buy another bag. However, if she buys 1 more belt, she will have \$6 left.

- (a) How much does one bag cost?
- (b) How much does Andrea have?

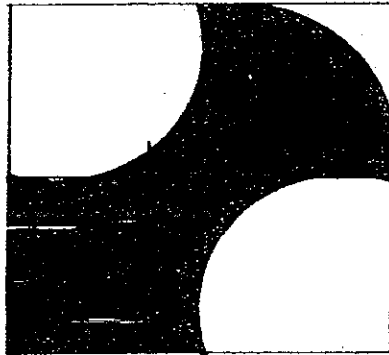
Ans: (a) _____ (3)

(b) _____ (2)

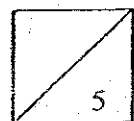


46. The shaded figure below is made up of 3 pieces of curved wire. Each piece of curved wire is a quarter circle of radius 14 cm.
What is the area of the shaded figure? (Take $\pi = \frac{22}{7}$)

Do not write
in this column



Ans: _____ (5)



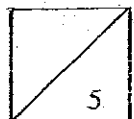
47. Mr Tan and Mr Wong drove from Town K to Town H. They started their journeys at different times. Mr Tan drove at 66km/h and took 50 min. Mr Wong drove at an average speed of 75km/h and reached Town H the same time as Mr Tan.

- (a) What is the distance from Town K to Town H?
- (b) What was the time taken for Mr Wong's journey?
- (c) If Mr Wong started the journey at 9.45 am, what time did Mr Tan start his journey?

Ans: (a) _____ (2)

(b) _____ (2)

(c) _____ (1)



48. There are some pears in three baskets, A, B and C. 40% of the number of pears in Box A is equal to 25% of the number of pears in Box B. The number of pears in Box C is $\frac{1}{3}$ of the number of pears in Box B.

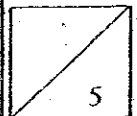
Do not write
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(a) Express the number of pears in Box C as a fraction to number of pears in Box A.

(b) If $\frac{1}{2}$ of the pears in Box B are taken out and placed into Box C, there will 36 pears in Box C. How many pears are there in Box A?

Ans: (a) _____ (3)

(b) _____ (2)



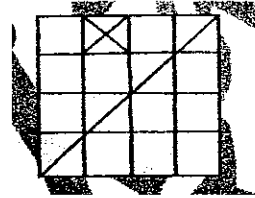
SCGS Primary School
Primary 6 Maths SA Exams (2008)

Answers Key

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

16. 55
 17. 4.25

21. 22.5cm²
 22.



18. 56
 19. 7
 20. 2

23. 22km
 24. \$18
 25. 6 : 3 : 1

26. \$960

27. 120

28. $\frac{22}{25 \times 40}$

29. 35cm²

30. 3.18pm

31. Box A $\rightarrow 0.75\text{kg} \times 2 = 1.5\text{kg}$

32. $\angle x - 125^\circ - 95^\circ = 30^\circ$

33. Distance $\rightarrow 0.75\text{kg} \times 2 = 1.5\text{kg}$

Time $\rightarrow \frac{40}{480h} = \frac{1}{2} \text{ h}$

34. 201 - 5 min
 500 - 2h 5min
 Ans: 500l

35. Boys now $(200 - 140) + 80 = 140$

Total $\rightarrow 140 + 140 = 280$

100% $\rightarrow 280$

1% $\rightarrow 2.8$

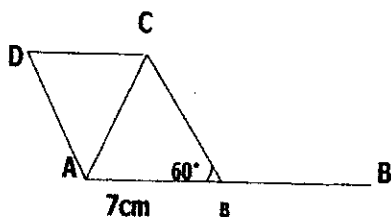
50% $\rightarrow 140$

Ans: 50%

36a. John — 1000
 Derek — 750
 More — $1000 - 750 = 250$
 Andrew — 500

36b. Meng — 250
 Total — $750 + 500 + 1000 + 250 = 2500$
 Fraction — $\frac{750}{2500}$
 $= \frac{15}{50}$
 $= \frac{3}{10}$

38.



37a. Friday
 Total — $120 + 180 + 100 + 80 + 200$
 Total collected — $\$(680 \times 0.80) = \544

39. Father : Mother
 5 : 2
 Total units = $5 + 2 = 7u$
 Father's weight = $5u$
 20% of $5u = \frac{20}{100} \times 5 = 1u$

20% of $5u = \frac{20}{100} \times 5 = 1u$
 Father's new weight — $5u - 1u = 4u$
 Mother's new weight — $7u - 4u = 3u$
 % increase $\rightarrow \frac{1}{2} \times 100\% = 50\%$

40. Length — $(3 \times 2h) \text{ cm} = 6h \text{ cm}$
 Perimeter — $(2h + 6h) \times 2 \text{ cm} = 16h \text{ cm}$

41. 15

42a. 3) 5, 9
 4) 7, 16
 5) 9, 25

43. Circum. of 3 semi-circles
 $(\frac{22}{7} \times 7 \times 7 \times \frac{1}{2}) \times 3 = 11 \times 3 = 33$
 Perimeter of cardboard — $126 - 33 + (7 \times 3) \text{ cm}$
 2 lengths — $(114 - 32 - 32) \text{ cm} = 50 \text{ cm}$
 1 length — $50 \div 2 = 25$
 CD $\rightarrow 25 - 18 = 7 \text{ cm}$

6) 11, 36
 42b. 10 days — 100
 11 days — 121
 No. of days — 11

44. $\frac{1}{6} + \frac{1}{3} = 140$

3 sets of $\rightarrow \frac{1}{6} + \frac{1}{3} = 140 \times 3 = 420$

3u $\rightarrow 660 - 420 = 240$

1u $\rightarrow 240 \div 3 = 80$

Total number of cows $\rightarrow 80 \times 6 = 480$

46. Area of 2 sq. $\rightarrow 14 \times 14 \times 2 = 392\text{cm}^2$

Area of 1 sq. $\rightarrow 14 \times 14 = 196\text{cm}^2$

Area of quarter $\rightarrow \frac{1}{4} \times \frac{22}{7} \times 14 \times 14 =$

154cm^2

Z $\rightarrow 196 - 154 = 42\text{cm}^2$

Shd pt. $\rightarrow 392 + 42 = 434\text{cm}^2$

48a $\frac{8}{15}$

48b. 27

45. 1 bag cost $\$6 + \$4 = \$10$ more than 1 belt
 3 belt + 7 bags $\rightarrow 3 \text{ belts} + 7 \text{ belts} + \$10 \times 7 =$
 10 belts + \$70

3 belts + 7 bags cost \$100

10 belts $\rightarrow \$100 - \$70 = \$30$

10 belts $\rightarrow \$100 - \$70 = \$30$

1 belts $\rightarrow \$3$

45a. 1 bag $\rightarrow \$3 + \$10 = \$13$

45b. Andre has $\$100 + \$13 - \$4 = \109

47a. Distance $\rightarrow 66 \times \frac{5}{6} = 55 \text{ km}$

47b. Time taken $\rightarrow \frac{55}{75} = \frac{11}{15} \text{ h}$

47c. Mr Wong reached $\rightarrow 9.45\text{am} + 44 \text{ min} =$
 10.29am