RAFFLES GIRLS' PRIMARY SCHOOL

SEMESTRAL ASSESSMENT 1
2010

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

Name : _____ ( ) Class: P4__

11 MAY 2010 MATHEMATICS Att: 1 h 45 min

SECTION A (25 marks)

Question 1 to 5 carry 1 mark each. Question 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. In 85 204, the digit 5 is in the _____ place.

   (1) tens
   (2) hundreds
   (3) thousands
   (4) ten thousands ( )

2. Which of the following is **not** a multiple of 8?

   (1) 16
   (2) 32
   (3) 46
   (4) 72 ( )

3. There are 83 chocolates in a box. How many chocolates are there in 9 boxes of chocolate?

   (1) 727
   (2) 747
   (3) 907
   (4) 927 ( )

4. Multiply 879 by 6 tens. The answer is _____.

   (1) 5224
   (2) 5274
   (3) 52240
   (4) 52740 ( )

5. The difference between 1867 cm and 7209 cm is _____.

(1) 5 m 332 cm
(2) 5 m 342 cm
(3) 53 m 32 cm
(4) 53 m 42 cm ( )

6. If the perimeter of a rectangle is 72 cm and its breadth is 8 cm, what is its length?

(1) 9 cm
(2) 28 cm
(3) 36 cm
(4) 56 cm ( )

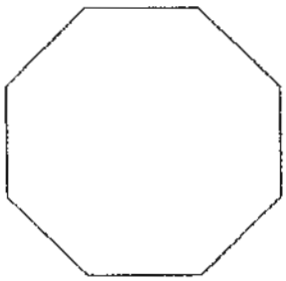
7. Madam Felicia went to the supermarket and bought the fruits as shown in the table.

Fruits	Quantity	Mass per item
Strawberries	3	50g
watermelons	2	2kg 350g

What was the total mass of all the fruits she bought?

(1) 2kg 400g
(2) 2kg 500g
(3) 4kg 700g
(4) 4kg 850g ( )

8. How many pair(s) of parallel lines are there in the figure below?



(1) 1
(2) 2
(3) 8
(4) 4 ( )

9. Which of the following is the same as $3\frac{2}{9}$?

(1) $\frac{6}{9}$

(2) $\frac{27}{9}$

(3) $\frac{29}{9}$

(4) $\frac{32}{9}$ ( )

10. Subtract $\frac{5}{8}$ from $\frac{3}{4}$. The answer is _____.

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

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

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

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

11. Subtract 300 tens from the sum of 58 thousands and 15 tens. The answer is _____.

(1) 55 015
(2) 55 150
(3) 57 850
(4) 58 015 ( )

12. Find the sum of all the common factors of 36 and 45.

(1) 1
(2) 12
(3) 13
(4) 4 ( )

13. Find the sum of 2075 and 8381, rounding off your answer to the nearest hundreds.

(1) 10 400
(2) 10 450
(3) 10 460
(4) 10 500 ( )

14. There were 36 adults and 108 children at a concert. What fraction of the audience were adults?

(1) $\frac{1}{4}$
(2) $\frac{1}{3}$
(3) $\frac{3}{5}$
(4) $\frac{3}{4}$ ( )

15. Ahmad sold 5 school bags and 9 pairs of shoes at a total price of $447. If each school bag cost $39, what was the price of each pair of shoes?

(1) $19
(2) $28
(3) $29
(4) $38 ( )

SECTION B (40 marks)

Question 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.

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16. Jill has $4.90. She has the same number of 20-cent coins and 50-cent coins. How many 20-cent coins does she have?

Ans: _____

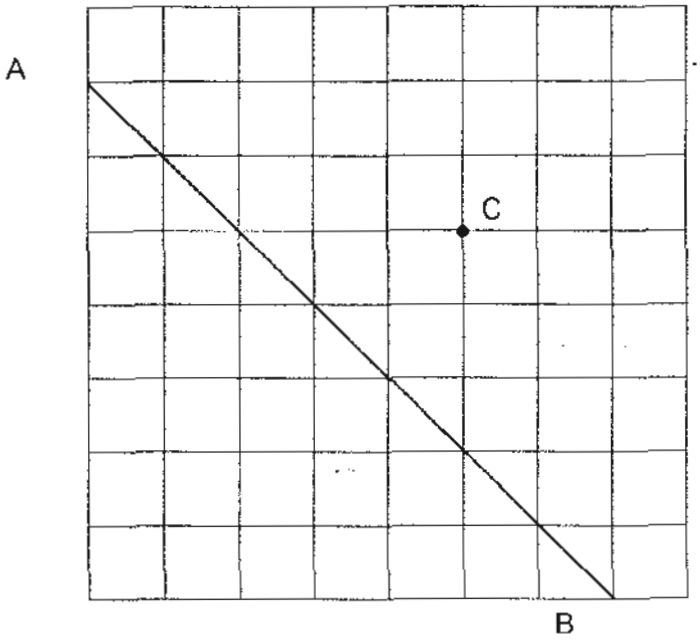
17. There are 28 classrooms in a primary school. How many classrooms are there in 3123 primary schools?

Ans: _____

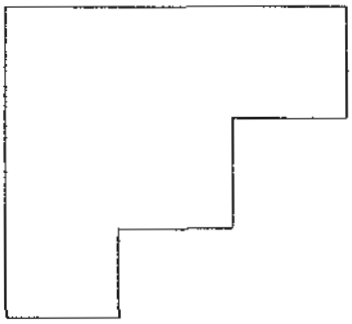
18. Find the length of a rectangle if its area is 108 cm^2 and its breadth is 9 cm.

Ans: _____cm

19. Using a ruler and a set-square, draw a line parallel to the given line, AB through the point C.

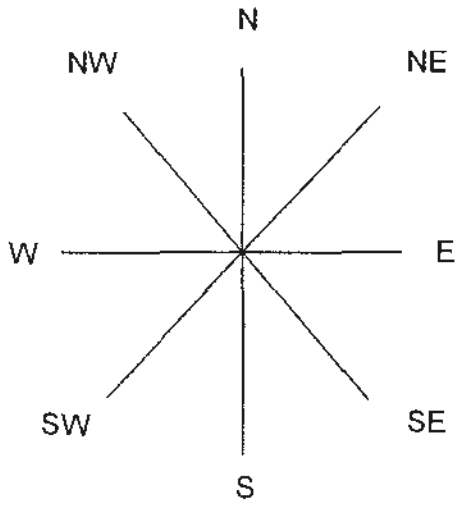


20. How many right angles can you find **within** the figure below?



Ans: _____

21. Chris is facing North-East. If she turns in an anti-clockwise direction, what is the angle that she needs to turn to face south?



Ans: _____ °

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

$$1\frac{1}{3} \quad , \quad \frac{4}{12} \quad , \quad 1\frac{4}{6} \quad , \quad \frac{7}{4}$$

Ans: _____

23. What is the product of 12 and $\frac{5}{18}$?

Ans: _____

24. There were 24 783 people living in Marine Parade Town. 892 people moved out of the estate. How many people were left? Round off your answer to the nearest thousands.

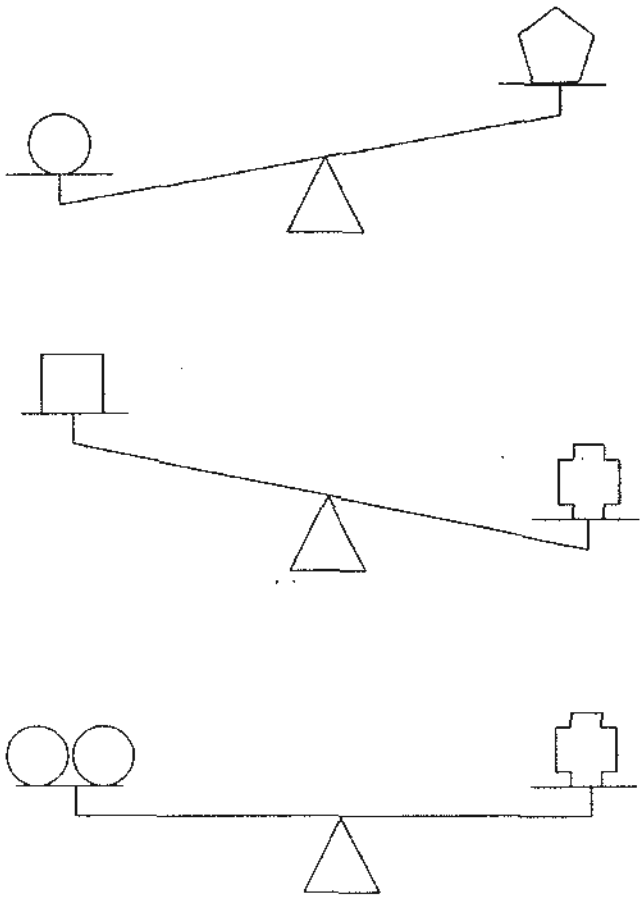
Ans: _____

25. 62 913 = 60 000 + 2003 + _____.

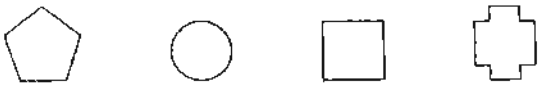
What is the missing number?

Ans: _____

26. Look at the diagrams below.

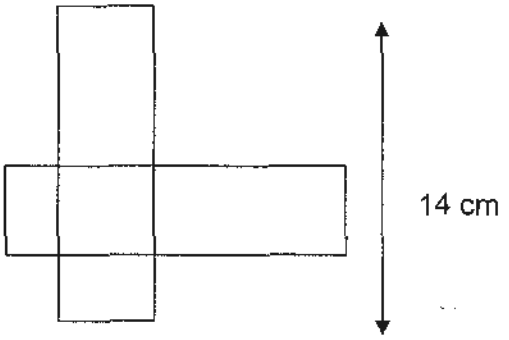


Which shape, A, B, C or D is the heaviest?



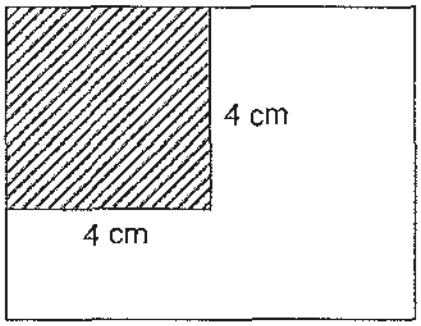
Ans: _____

27. The figure below is made up of 2 identical rectangles of length 14 cm. Find the perimeter of the figure.



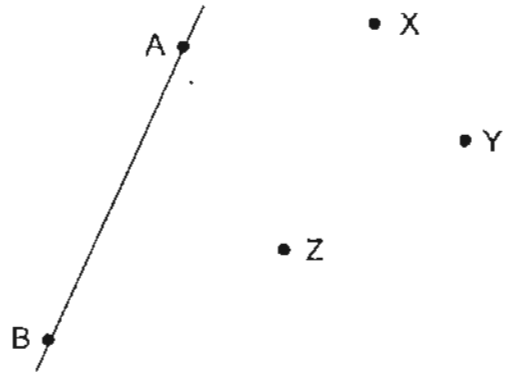
Ans: _____ cm

28. The diagram below is made up of a shaded square and a rectangle. The square has sides of 4 cm and the area of the rectangle is 3 times the area of the square. What is the breadth of the rectangle if its length is twice the side of the square?

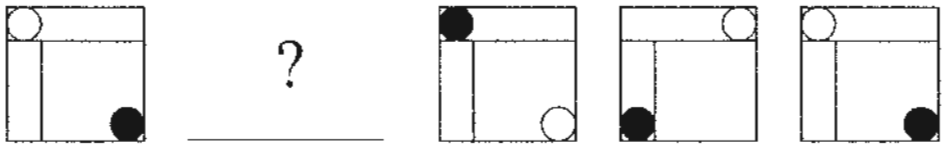


Ans: _____ cm

29. Draw a line **perpendicular** to AB through any of the dots X, Y or Z.



30. Complete the sequence of patterns below by drawing the possible pattern.



Ans: _____

31. Find the value of $\frac{9}{4} + \frac{23}{6}$. Leave your answer as an improper fraction.

Ans: _____

32. $\frac{1}{7} + \frac{\square}{21} = \frac{1}{3}$

What is the missing number in the box?

Ans: _____

33. What is the missing number in the pattern?

2, 3 ,6 ,18 , _____ , 1944

Ans: _____

34. John has 36 yellow marbles and an equal number of red and green marbles. If he has a total of 60 marbles, what fraction of his marbles are red?

Ans: _____

35. A bottle is $\frac{2}{3}$ full when it is filled with 6 litres of water. How much water must be poured away for the bottle to be $\frac{1}{2}$ full?

Ans: _____ /

SECTION C (35 marks)

For question 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.

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36. Madam Chong spent $1099 to buy some boxes of chocolate. Each box cost $7. She kept some for her family as Christmas presents. She sold the rest at $9 each and collected $1161. How many boxes of chocolate did she keep for her family?

Ans: _____ [3]

37. Jodie bought a total of 687 beads. There were 124 red beads and 95 more blue beads than red ones. The rest were green beads. How many green beads were there?

Ans: _____ [3]

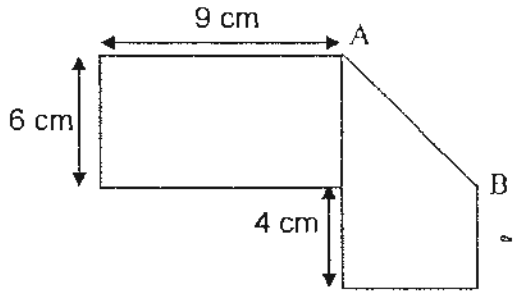
38. Sam has 96 English and Chinese books altogether. $\frac{3}{4}$ of the English books and $\frac{1}{2}$ of the Chinese books are fiction books. The rest are non-fiction books. He has a total of 24 Chinese books. How many non-fiction books does he have?

Ans: _____ [4]

39. A rectangular piece of paper is folded along line AB.

(a) Find the area of the paper before it was folded.

(b) How many 2-cm squares can be cut from the unfolded rectangular piece of paper?



Ans: (a)_____ [2]

(b)_____ [2]

40. Ming Zhuan and Fahir had a total mass of 69 kg when they were 12 years old. Ten years later, their total mass increased by 57 kg and Ming Zhuan's mass was 2 times of Fahir's mass.
What was the mass of Ming Zhuan ten years later?

Ans: _____ [4]

41. Both Jane and Tom received some money each from their mother. Tom received \$360 and spent $\frac{3}{5}$ of his money on a computer game while Jane spent part of the money she received on a dress. They both had the same amount of money left.

(a) How much money did Tom have after buying the computer game?
(b) If Jane had paid \$120 for the dress, how much money did she receive from her mother?

Ans: (a)_____ [2]

(b)_____ [2]

42. Mr Tan sold 456 roasted ducks at $23 each in two days. He sold 5 times as many roasted ducks on the first day as the second day. How much did he collect on the first day?

Ans: _____ [4]

43. There are some ducks and cows in the farm. Altogether, there are 27 heads and 84 legs. How many ducks and how many cows are there?

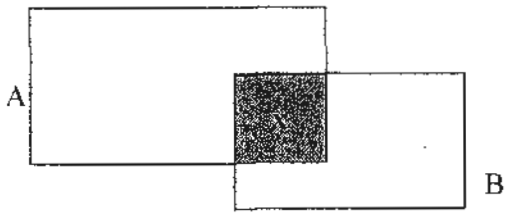
Ans: _____ cows and _____ ducks [4]

44. 2 rectangles A and B overlap at X as shown in the diagram below.

X is $\frac{1}{8}$ of rectangle A.

X is $\frac{1}{6}$ of rectangle B.

If the length of rectangle B is 9 cm and its breadth is 4 cm what is the area of the unshaded part of figures A and B?



Ans: _____ [5]

-End of Paper-

Please check your work carefully ☺

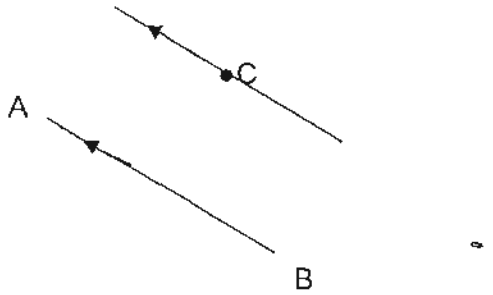
Setters: Miss Chong Jieqi
Mdm Tng Jiew Kim
Mr Lau Kar Loong

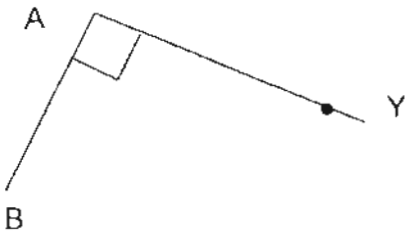
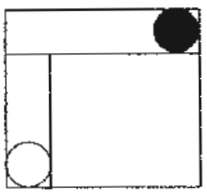
RGPS P4 SA1 Mathematics 2010 Answer Key

Section A (1m each for Q1 - 5; 2m each for Q6 - 15)

1) 3	6) 2	11) 2
2) 3	7) 4	12) 3
3) 2	8) 4	13) 4
4) 4	9) 3	14) 1
5) 4	10) 1	15) 2

(2 marks each)

16)	490 ÷ 70 = **7** (M1,A1) Alternative: Guess & check, correct format and start but wrong answer = 1m
17)	28 x 3123 = **87444** (M1, A1)
18)	108 ÷ 9 = **12** (M1, A1)
19)	 *Deduct 1m if no arrows
20)	6
21)	45° x 5 = 225° (M1,A1)
22)	$\frac{4}{12}, 1\frac{1}{3}, 1\frac{4}{6}, \frac{7}{4}$ (A2) $\frac{4}{12}, 1\frac{4}{12}, 1\frac{8}{12}, 1\frac{9}{12}$ or other equivalent fractions (M1)

23)	$3\frac{1}{3}$ (A2) $12 \times \frac{5}{18} = \frac{60}{18}$ (M1) $\frac{60}{18}$ or any other equivalent (M1) e.g.: $\frac{30}{9}$, $\frac{20}{6}$, $\frac{10}{3}$
24)	24783 − 892 = 23891 (M1) 23891 ≈ **24000** (A1)
25)	60000 + 2003 = 62003 62913 − 62003 = **910** (M1,A1)
26)	**D** (A2) *award marks if pupils draw  shape.
27)	14 x 4 = **56** (M1,A1)
28)	4 x 4 = 16 16 x 3 = 48 (M1) 4 x 2 = 8 48 ÷ 8 = **6** (A1)
29)	 Ans: Y *No right angle sign: −1m *Didn't pass through: −1m
30)	 Incomplete pattern = 0 m

31)	$\frac{9}{4} + \frac{23}{6} = \frac{27}{12} + \frac{46}{12}$ (M1) $= \underline{\frac{73}{12}}$ (A1) OR $\frac{54}{24} + \frac{92}{24} = \frac{146}{24}$ (M1) $= \underline{\frac{73}{12}}$ (A1)
32)	$\frac{7}{21} - \frac{3}{21} = \frac{4}{21}$ (M1) Ans: **4** (A1)
33)	6 x 18 = **108** (M1,A1) OR 1944 ÷ 18 = **108** (M1,A1)
34)	60 − 36 = 24 24 ÷ 2 = 12 (M1) $\frac{12}{60} = \frac{1}{5}$ (A1)
35)	$\frac{2}{3} \rightarrow$ 6 litres (M1) or 6 ÷ 2 = 3 or 6000 ÷ 2 = 3 $1 \rightarrow$ 9 litres $\frac{1}{2} \rightarrow$ 4.5 litres 6 litres − 4.5 litres = $\underline{1\frac{1}{2}l}$ **or** $\underline{1.5l}$ (A1) **Alternative method:** $\frac{4}{6} \rightarrow$ 6 litres (M1)

	$\frac{1}{6} \rightarrow \frac{6}{4}$ litres = $1\frac{1}{2}l$ **or** $1.5l$ (A1)

Section C:

3m each: Q36 – Q38

4m each: Q39 –Q43

5m each: Q44

36) 1099÷ 7 = 157 (M1)

1161 ÷ 9 = 129 (M1)

157 – 129 = **28** (A1)

Alternative method:

1099 ÷ 7 = 157 (M1)

157 x 9 = 1413

1413 – 1161 = 252 (M1)

252 ÷ 9 = **28** (A1)

Alternative method:

1161 ÷ 9 = 129 (M1)

129 x 7 = 903

1099 – 903 = 196 (M1)

196 ÷ 7 = **28** (A1)

37) 124 + 95 = 219 (M1)

124 + 219 = 343 (M1)

687 – 343 = **344** (A1)

Alternative method:

R – 124

B – 124 + 95 = 219 (M1)

G –?

687 – 124 – 219 = **344** (M1,A1)

Alternative method:

124 + 124 + 95 = 343 (M1)

687 – 343 = **344** (A1)

Alternative method:

687 – 95 = 592 (M2)

592 – 124 – 124 = **344** (A1)

38) 96 – 24 = 72 (EL books) (M1)

$\frac{1}{4}$ x 72 = 18 (M1)

$\frac{1}{2}$ x 24 = 12 (M1)

18 + 12 = **30** (A1)

Alternative method:

96 – 24 = 72 (M1)

$\frac{3}{4}$ x 72 = 54

$\frac{1}{2}$ x 24 = 12 (M1)

54 + 12 = 66

96 – 66 = **30** (M1,A1)

Alternative method:

24 ÷ 2 = 12 (M1)

12 ÷ 2 = 6

6 x 3 = 18 (M1)

18 + 12 = **30** (M1,A1)

39) a) 9 + 4 + 6 = 19

19 x 6 = **114** (M1,A1)

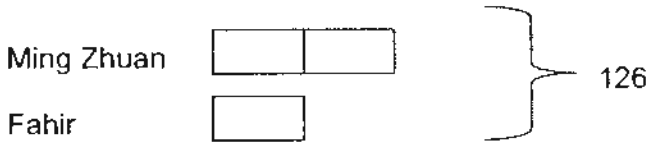
b) 19 ÷ 2 = 9 r 1

6 ÷ 2 = 3 (M1)

3 x 9 = **27** (A1)

40)

69 + 57 = 126 (M1)



126 ÷ 3 = 42 (M1)

42 x 2 = **84 kg** (M1, A1)

41) a) 360 ÷ 5 = 72

72 x 3 = 216 or 2/5 x 360 = **144**

360 – 216 = **144** (M1, A1)

b) 144 + 120 = **264** (M1, A1)

42) 456 x 23 =10488 (M1)

10488 ÷ 6 = 1748 (M1) or 10488 x 5 = 52440

1748 x 5 = **8740** (M1, A1) 52440 ÷ 6 = **8740**

Alternative:

456 ÷ 6 = 76 (M1)

76 x 5 = 380 (M1) Or 456 – 76 = 380

380 x $23 = **$8740** (M1,A1)

Alternative :

76 x 23 = 1748 (M2)

1748 x 5 = 8740 (M1, A1)

43)

Ducks	Duck legs	Cows	Cow legs	Total legs
10	20	17	68	88
11	22	16	64	86
12 (A1)	24	15 (A1)	60	84

Guess & check method:

* Correct start: 1m

Correct format and able to list few examples: 1m

Alternative method:

Assume all are ducks:

27 x 2 = 54

84 – 54 = 30 (M1)

30 ÷ 2 = **15** (cows) (M1,A1)

27 – 15 = **12** (ducks) (A1)

Alternative method:

Assume all are cows:

27 x 4 = 108

108 – 84 = 24 (M1)

$24 \div 2 = \underline{\mathbf{12}}$ (ducks) (M1,A1)
$27 - 12 = \underline{\mathbf{15}}$ (cows) (A1)

Alternative method:
$84 \div 4 = 21$
$27 - 21 = 6$ (M1)
$21 - 6 = \underline{\mathbf{15}}$ (M1,A1)
$27 - 15 = \underline{\mathbf{12}}$ (A1)

OR

$84 \div 2 = 42$ (M1)
$42 - 27 = \underline{\mathbf{15}}$ (M1,A1)
$27 - 15 = \underline{\mathbf{12}}$ (A1)

44) Area of B $\longrightarrow$ $9 \times 4 = 36\ cm^2$

X $\longrightarrow$ $\frac{1}{6}$ of $36 = 6\ cm^2$ (M1)

Unshaded B $\longrightarrow$ $36 - 6 = 30\ cm^2$ (M1) or $6 \times 5 = 30\ cm^2$

Unshaded A $\longrightarrow$ $6 \times 7 = 42\ cm^2$ (M1) or $48 - 6 = 42\ cm^2$

$30 + 42 = \underline{\mathbf{72}}$ (M1,A1)

Alternative method:
$9 \times 4 = 36$

$\frac{1}{6} \times 36 = 6$ (M1)

$8 \times 6 = 48$ (M1)

$6 \times 2 = 12$

$48 + 36 = 84$ (M1)

$84 - 12 = \underline{\mathbf{72}}$ (M1,A1)

Alternative method:
$\frac{1}{6} \times 36 = 6$ (M1)

$12 \times 6 = \underline{\mathbf{72}}$ (M3,A1)