



**RAFFLES GIRLS' PRIMARY SCHOOL**  
**SEMESTRAL ASSESSMENT (1)**  
**MATHEMATICS**  
**2006**

Name: \_\_\_\_\_ Class: P6 \_\_\_\_\_ Index No.: \_\_\_\_\_

Date: 9 MAY 2006

Duration: 2 h 15 min

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**Instructions to pupils**

1. Do not open this booklet until you are told to do so.
2. This paper consists of 3 parts, Sections A, B and C.
3. For questions 1 to 15 in Section A, shade the correct oval on the Optical Answer Sheet (OAS).

	Maximum	Marks Obtained
Section A	20	
Section B	30	
Section C	50	
Total	100	
	Class	Level
Highest Score		
Average Score		
Parent's Signature		



# RAFFLES' GIRLS PRIMARY SCHOOL

## SEMESTRAL ASSESSMENT ( 1 ) 2006

Name: \_\_\_\_\_ (     )                      Class: P6 \_\_\_\_\_

9 May 2006

MATHEMATICS

Duration: 2h 15min

### 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. Three million, three hundred and three thousand and three written in numerals is \_\_\_\_\_.

(1) 3 003 303

(2) 3 030 303

(3) 3 303 003

(4) 3 330 003

2.  $3 \times \frac{1}{7}$  is the same as \_\_\_\_\_.

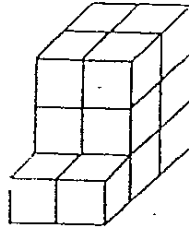
(1)  $\frac{4}{7}$

(2)  $\frac{31}{7}$

(3)  $\frac{1}{7} + \frac{1}{7} + \frac{1}{7}$

(4)  $\frac{1}{7} \times \frac{1}{7} \times \frac{1}{7}$

3. The following solid is made up of 1-cm cubes.



The volume of the solid is \_\_\_\_\_  $\text{cm}^3$ .

- (1) 12  
(2) 13  
(3) 14  
(4) 15
4. A ball rolls 20 cm in 30 seconds. Its speed is \_\_\_\_\_  $\text{cm}/\text{min}$ .
- (1) 10  
(2) 20  
(3) 40  
(4) 200
5. Find the ratio of 250 cm to 5 m.
- (1) 1 : 2  
(2) 1 : 5  
(3) 2 : 1  
(4) 50 : 1

6. Express  $5\frac{5}{12}$  as an improper fraction.

(1)  $\frac{25}{12}$

(2)  $\frac{55}{12}$

(3)  $\frac{60}{12}$

(4)  $\frac{65}{12}$

7. Express  $\frac{3}{20}$  as a decimal.

(1) 0.1

(2) 0.12

(3) 0.15

(4) 0.3

8. A class has 15 girls and  $p$  boys. Each boy donates \$4 and each girl donates \$5. How much does the class donate in total?

(1)  $65p$

(2)  $79p$

(3)  $(4p + 75)$

(4)  $(5p + 60)$

9. A box contains red, yellow and blue beads in the ratio of 7 : 4 : 5. Express the number of red beads as a fraction of the number of blue beads.

(1)  $\frac{7}{16}$

(2)  $\frac{5}{7}$

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

(4)  $\frac{7}{5}$

10. Express  $\frac{7}{25}$  as a percentage.

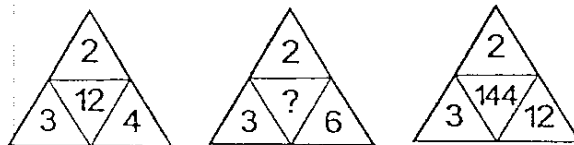
(1) 28%

(2) 30%

(3) 31%

(4) 35%

11. Study the pattern below carefully. Find the missing number.



(1) 40

(2) 54

(3) 63

(4) 76

12. Find the value of 10 tens + 3 ones + 12 tenths + 4 thousandths.

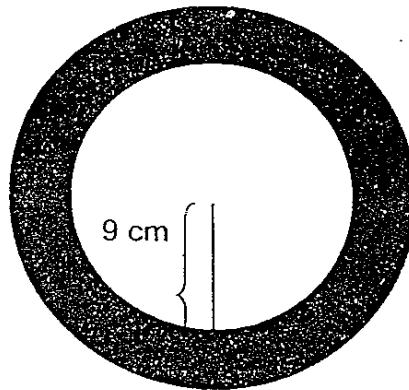
(1) 13.124

(2) 14.204

(3) 103.124

(4) 104.204

13. The area of the shaded part in the figure is  $141.3 \text{ cm}^2$ . The radius of the bigger circle is 9 cm. Find the area of the unshaded portion.  
(Take  $\pi = 3.14$ )



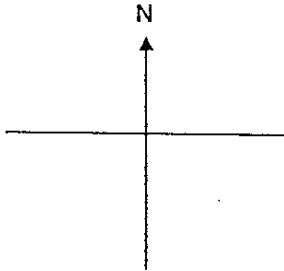
(1)  $84.78 \text{ cm}^2$

(2)  $113.04 \text{ cm}^2$

(3)  $254.34 \text{ cm}^2$

(4)  $395.64 \text{ cm}^2$

14. Meili is facing south. If she turns  $135^\circ$  clockwise and then  $90^\circ$  anti-clockwise, she faces \_\_\_\_\_.



- (1) north-east  
(2) north-west  
(3) south-east  
(4) south-west
15. Mohan left his house at 7.45 a.m. He reached his office at 8.20 a.m. If his office is 20 km from his house, what was his average speed?
- (1)  $11\frac{2}{3}$  km/h  
(2) 30 km/h  
(3)  $34\frac{2}{7}$  km/h  
(4) 40 km/h

Name : \_\_\_\_\_ Class : P6 \_\_\_\_\_ Index No : \_\_\_\_\_

Booklet B1 (30 marks)

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided.

Questions 26 to 35 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the space provided. For questions which require units, give your answers in the units stated.

16. Round off 645 742 to the nearest ten thousands.

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

17. Find the value of  $45 \div (12 - 7) \times 3$

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

18. Express  $2\frac{1}{6}$  years in months.

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



19. Mrs Lim bought  $6\frac{1}{2}$  kg of flour. She used  $3\frac{3}{4}$  kg of it to bake a chocolate cake. How much flour had she left? (Leave your answer as a fraction in its simplest form)

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

20. Write  $3\frac{17}{20}$  as a decimal.

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

21. 9 km 46 m is the same as \_\_\_\_\_ km.

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

22. Find the circumference of a circle of diameter 5 m. (Take  $\pi = 3.14$ )

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

23. Simplify  $7 - 2c + 12 + 7c$ .

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

24. A machine makes plastic bottles at the rate of 20 bottles per minute. At this rate, how many plastic bottles can it make in 4 hours?

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

25. The ratio of the breadth to the length of a rectangle is 2 : 5. If the breadth is 24 cm, what is the difference between the length and the breadth?

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

26. 15% of a number is 45. What is the number?

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

27. In 361 660, the value of the digit in the ten thousands place is \_\_\_\_\_ times the value of the digit in the hundreds place?

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

28.  $7\frac{3}{4} = \frac{3}{8} + \square \times \frac{1}{8}$

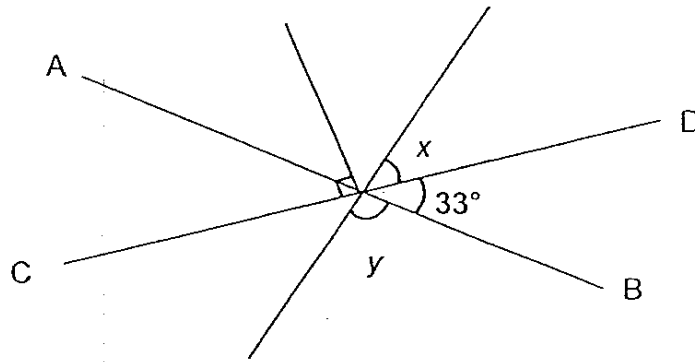
Fill in the blank with a suitable answer.

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

29. Linda is 4 times heavier than her baby brother. If her baby brother weighs 7.35 kg, what is their total weight?

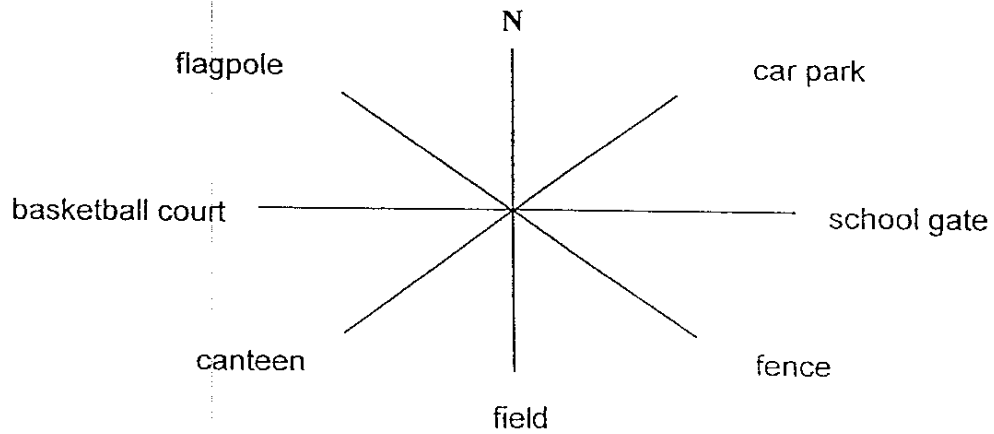
Ans : \_\_\_\_\_ kg

30. AB and CD are straight lines.  $\angle y$  is twice  $\angle x$ . Find  $\angle y$ .  
(The figure is not drawn to scale)



Ans : \_\_\_\_\_<sup>o</sup>

31. The figure below is an 8 point compass. Andrew is facing the basketball court. If he turns  $225^\circ$  anti-clockwise, he would be facing the \_\_\_\_\_.



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

32. Gary bought 3 T-shirts and 4 pairs of shorts. Each pair of shorts cost \$ $p$  and each T-shirt cost twice as much as each pair of shorts. How much change did he receive if he gave the cashier \$100?

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

33. Anna drove at an average speed of 75 km/h for 300 km from Singapore to Pahang. She took a rest for half an hour before reaching Pahang at 12.20 p.m. At what time did Anna leave Singapore?

Ans : \_\_\_\_\_ a.m.

34.  $4 : \text{☺} = \text{☺} : 16$

$\text{☺} = ?$

What does ☺ represent?

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

35. Mr Pang's salary was reduced by 10% to \$2880. What was his salary before the reduction?

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

Name : \_\_\_\_\_ Class : P6 \_\_\_\_\_ Index No : \_\_\_\_\_

Booklet B2 (50 marks)

For questions 36 to 48, 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.

36. Dawn and Janice share a total of 35 bars of chocolate. Dawn can finish eating 1 bar of chocolate in 3 days while Janice can finish eating 1 bar of chocolate in 4 days. How long does it take for both of them to finish eating 35 bars of chocolate if they start on the same day?

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

37. Brand Miko badminton racket costs \$35 each while Brand Shogun badminton racket costs \$5 $p$  less. If  $p = 4$ , how many Brand Shogun badminton rackets can be bought with \$105?

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

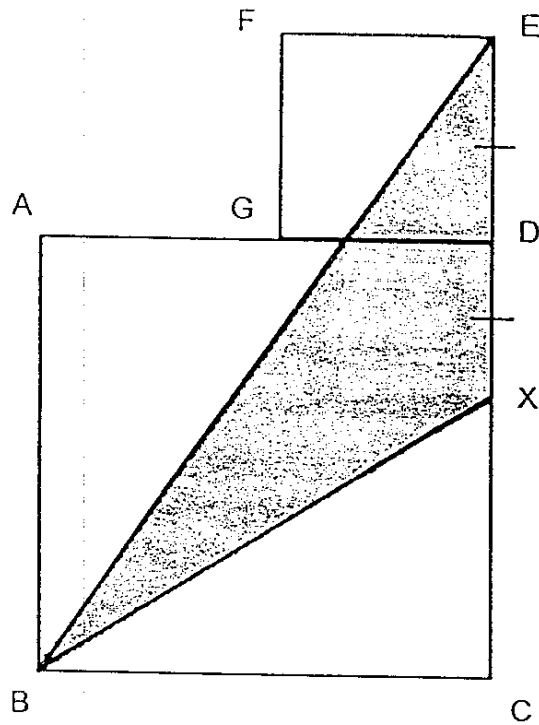
38. Claire can paint a wall in 2 hours. It takes Jane 3 hours to paint the same wall. If Claire and Jane work together, how long will they take to paint the wall?

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

39. A file is sold at \$3.50 each or in packets of 3 at \$10 per packet. Miss Leong wants to buy exactly 35 files for the students in her study camp. What is the least amount of money that Miss Leong could have spent on the files?

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

40. The figure below is made up of two squares. If  $CX : XD$  is  $3 : 1$  and the area of the big square is  $64 \text{ cm}^2$ , find the shaded area.



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



41. Amy had \$60 and Benny had \$40 in their bank account. Everyday, Amy deposits \$5 while Benny deposits \$9.

(a) How long will it take for Amy and Benny to have the same amount of money in their account?

(b) How many days will Benny need to save in order to have \$40 more than Amy?

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

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

42. Mrs Chan had a total of 72 stalks of orchids and roses in the ratio of 7 : 5. Later she bought 36 more stalks of orchids and roses from a shop and the ratio of the number of stalks of orchids to roses then became 5 : 4. How many stalks of orchids did she buy from the shop?

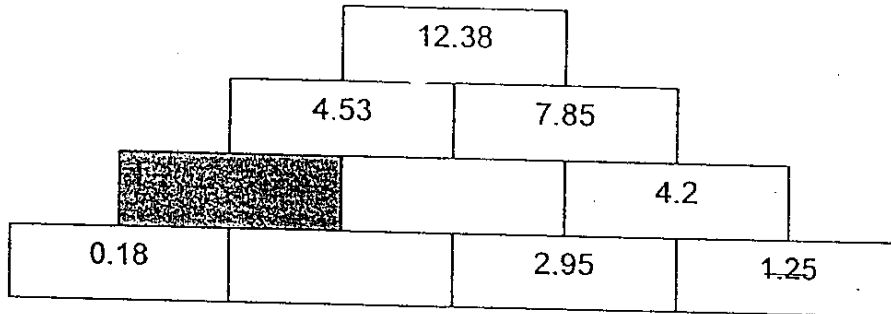
Ans: \_\_\_\_\_ [4]

43. There are 40 pupils at a party. Each girl is given 6 sweets and each boy is given 5 sweets. The girls have 42 more sweets than the boys. How many more girls than boys are there at the party?

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

Name : \_\_\_\_\_ Class : P6 \_\_\_\_\_ Index No. : \_\_\_\_\_

44. a) Study the pattern below carefully. Fill in the shaded box with a suitable answer.



Ans: \_\_\_\_\_ [2]

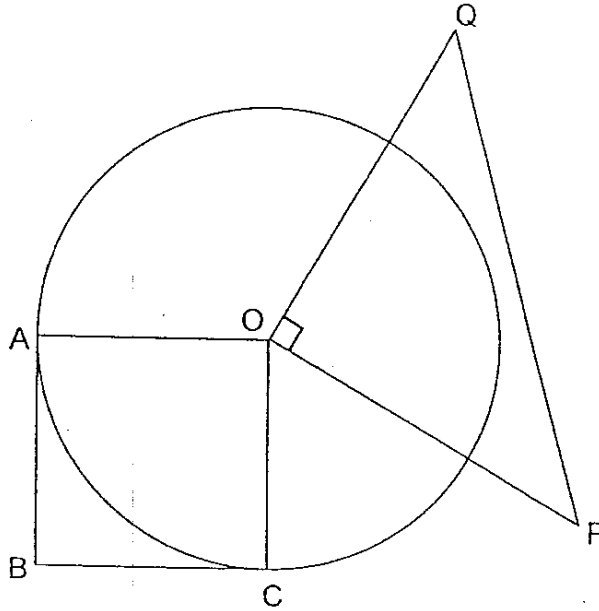
- b) The rates for printing at a shop are given below.

No. of pages	Cost
First 100 pages	\$0.05 per page
Subsequent pages	\$0.03 per page

How much does it cost to print 150 pages?

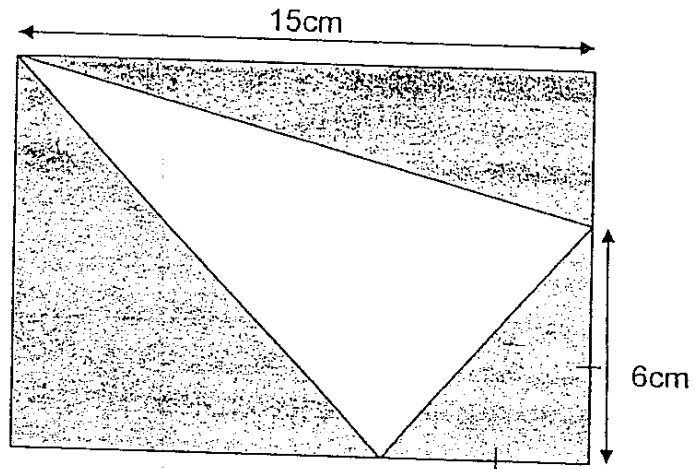
Ans: \_\_\_\_\_ [2]

45. The figure below is not drawn to scale, O is the centre of the circle whose radius is 30 cm. OABC is a square and OPQ is a right-angled triangle.  $OP = OQ = 42$  cm. Find the area of the whole figure.  
(Take  $\pi = 3.14$ )



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

46. In the figure below, the breadth of the rectangle is  $\frac{2}{3}$  of its length. What fraction of the figure is unshaded? (The figure is not drawn to scale)



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

47. A car travelling from Town X to Town Y passed a bus travelling in the same direction when it had covered  $\frac{3}{7}$  of the journey. 3 hours later, the car had reached Town Y but the bus was still 55 km away from Town Y. If the speed of the bus was 35 km/h, how long did it take for the bus to travel from Town X To Town Y?

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

48. Mr Tan had a box of oranges for sale. The first customer bought 50% of the oranges and received 8 oranges free. The second customer bought 45% of the remaining oranges and received 5 oranges free. The third customer bought 70% of the remaining oranges and received 3 oranges free. Mr Tan then had 1 dozen oranges left. How many oranges were there in the box at first?

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

End of Paper

Setters: Miss Joyce Tan  
Mdm Adeline Khalik  
Mr Ho Kai Huat  
Miss Yan Ying Ling



Raffles Girls' Primary School  
Primary 6 Maths SA1 Exams (2006)

Answer Sheets

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

- |                       |                  |
|-----------------------|------------------|
| 16. 650000            | 21. 9.046km      |
| 17. 27                | 22. 15.7m        |
| 18. 26 months         | 23. 19+5c        |
| 19. $2\frac{3}{4}$ kg | 24. 4800 bottles |
| 20. 3.85              | 25. 36cm         |

26. 300	27. 100
28. 59	29. 36.75kg
30. 98	31. carpark
32. \$(100-10p)	33. 7.50am
34. 8	35. \$3200.00
36. $\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$ $\frac{7}{12}$ bars = 1 day 35bars = 5 x 12 = <u>60 days</u> (Ans)	37. Miko = \$35 Shogun = 35-5p 1S = 35-(5 x 4) = 35 - 20 = \$15.00 Rackets bough = 105 ÷ 15 = <u>7</u> (Ans)

38.	<p><u>Claire</u>                      <u>Jane</u></p> <p>1 hr = <math>\frac{1}{2}</math> wall                      <math>\frac{1}{3}</math> wall</p> <p><math>\frac{1}{2} + \frac{1}{3} = \frac{5}{6}</math></p> <p><math>\frac{1}{6}</math> wall = 12mins</p> <p><math>\frac{6}{6}</math> wall = 12 x 6 = 72 mins</p> <p style="text-align: right;">= 1hr 12mins</p> <p>They took <u>1 hr 12 mins</u> (Ans)</p>	39.	<p>1 file = \$3.50</p> <p>1 packet = 3 files = \$10.00</p> <p style="padding-left: 20px;">= 35 ÷ 3</p> <p style="padding-left: 20px;">= 11 remainder 2</p> <p style="padding-left: 20px;">= 10 x 11</p> <p style="padding-left: 20px;">= \$110.00</p> <p style="padding-left: 20px;">= 3.50 x 2 = \$7.00</p> <p>Total \$(110 + 7)</p> <p style="padding-left: 20px;">= \$117.00</p> <p>Miss Leong spend <u>\$110.00</u> (Ans)</p>				
40.	<p style="text-align: center;">CX : XD</p> <p style="text-align: center;">3 : 1</p> <p><math>8 \times 8 = 64\text{cm}^2</math></p> <p>1 side = 8cm</p> <p>3 + 1 = 4</p> <p>4 units = 8cm</p> <p>1 unit = 2cm</p> <p>2 units = 2 x 2</p> <p style="padding-left: 20px;">= 4cm</p> <p>Area of <math>\Delta = \frac{1}{2} \times 4 \times 8</math></p> <p style="padding-left: 20px;">= 16cm<sup>2</sup></p> <p>The shaded area is <u>16cm<sup>2</sup></u> (Ans)</p>	41a.	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Amy</u></td> <td style="text-align: center;"><u>Benny</u></td> </tr> <tr> <td style="text-align: center;">\$60.00</td> <td style="text-align: center;">\$40.00</td> </tr> </table> <p>Amy = \$(5.00 x 5)</p> <p style="padding-left: 20px;">= \$25.00</p> <p>Benny = \$(9 x 5)</p> <p style="padding-left: 20px;">= \$45.00</p> <p>Amy \$(60 + 25) = \$85.00</p> <p>Benny \$(40 + 45) = \$85.00</p> <p>It takes them <u>5 days</u> to have the same amount</p> <p>41b.</p> <p>Amy = \$(5 x 15 days) = \$75.00</p> <p style="padding-left: 20px;">= \$(75 + 60) = \$135.00</p> <p>Benny = \$(9 x 15 days) = \$135.00</p> <p style="padding-left: 20px;">= \$(135 + 40) = \$175.00</p> <p>Different \$(175 - 135) = \$40</p> <p>It takes <u>15 days</u> (Ans)</p>	<u>Amy</u>	<u>Benny</u>	\$60.00	\$40.00
<u>Amy</u>	<u>Benny</u>						
\$60.00	\$40.00						
42..	<p>10 - 7 = 3</p> <p>8 - 5 = 3</p> <p>3 + 3 = 6</p> <p>6 units = 36</p> <p>1 unit = 6</p> <p>3 units = 6 x 3 = <u>18 stalks</u> (Ans)</p>	43.	<p>Different = 22 - 18</p> <p style="padding-left: 20px;">= 4</p> <p>There are <u>4 more girls</u> (Ans)</p>				

<p>44a</p> $7.85 + 4.20 = 3.65$ $4.53 - 3.65 = 0.88$ <p>The shaded portion is <u>0.88</u> (Ans)</p> <p>44b.</p> <p>100 pages = 0.05 per pae  100 pages = 100 x 0.0  = \$5.00</p> <p>150 - 100 = 50  50 pages = 0.05 x 50  = \$15.00</p> <p>Total = \$(5.00 + 15.00)  = \$20.00</p> <p>The cost is <u>\$20.00</u> (Ans)</p>	<p>45.</p> <p>Area of square = 30 x 30 = 900</p> <p>Area of <math>\Delta</math> = <math>\frac{1}{2} \times 42 \times 42</math>  = 882</p> <p>Area of semi-square = <math>\frac{1}{2} \times 3.14 \times 30 \times 30</math>  = 1413</p> <p>Figure = (900 + 882 + 1413)  = 3195cm<sup>2</sup></p> <p>The area is <u>3195cm<sup>2</sup></u> (Ans)</p>
<p>46.</p> <p>Length = 15cm</p> <p>3units = 15cm  1units = 5cm  2units = 5 x 2  = 10cm</p> <p>Different = 10 - 6 = 4cm</p> <p><math>\Delta A = \frac{1}{2} \times 4 \times 15 = 30\text{cm}^2</math></p> <p><math>\Delta B = \frac{1}{2} \times 6 \times 6 = 18\text{cm}^2</math></p> <p>Different = 15 - 6 = 9cm  6 + 4 = 10cm</p> <p><math>\Delta C = \frac{1}{2} \times 10 \times 9 = 45\text{cm}^2</math></p> <p>Whole figure = 15 x 10 = 150cm<sup>2</sup>  Unshaded = 150 - 30 - 18 - 45  = 57cm<sup>2</sup></p> <p>Fraction = <math>\frac{57}{150}</math>  = <math>\frac{19}{50}</math></p> <p>Unshaded figure = <math>\frac{19}{50}</math> (Ans)</p>	<p>47.</p> <p>3 hours (Car) = <math>\frac{4}{7}</math> of the journey.</p> <p>Distance = 35 x 3 = 105km (Bus)  105 + 55 = 160km  4 units = 160km  1 unit = 40km  Total distance = 40 x 7  = 280km</p> <p>Time = 280 ÷ 35  = 8 hours</p> <p>The bus will take <u>8 hours</u> (Ans)</p>

48.  $12 + 3 = 15$   
 $30\% = 15$   
 $100\% = 50$   
 $50 + 5 = 55$   
 $55\% = 55$   
 $100\% = 100$   
 $100 + 8 = 108$   
 $50\% = 108$   
 $100\% = 216$

There are 216 oranges (Ans)