

Date : 6/10/06

Time : 2 h 15 min

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**SINGAPORE CHINESE GIRLS' SCHOOL**  
**SECOND SEMESTRAL ASSESSMENT 2006**

**PRIMARY 5 EM 1 / 2**

**MATHEMATICS**

**BOOKLET A**

**15 Questions**

**20Marks**

**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 : \_\_\_\_\_ ( )

Date : \_\_\_\_\_

Class : Primary 5 SY/C/G/SE/P

Time : 2 h 15 min

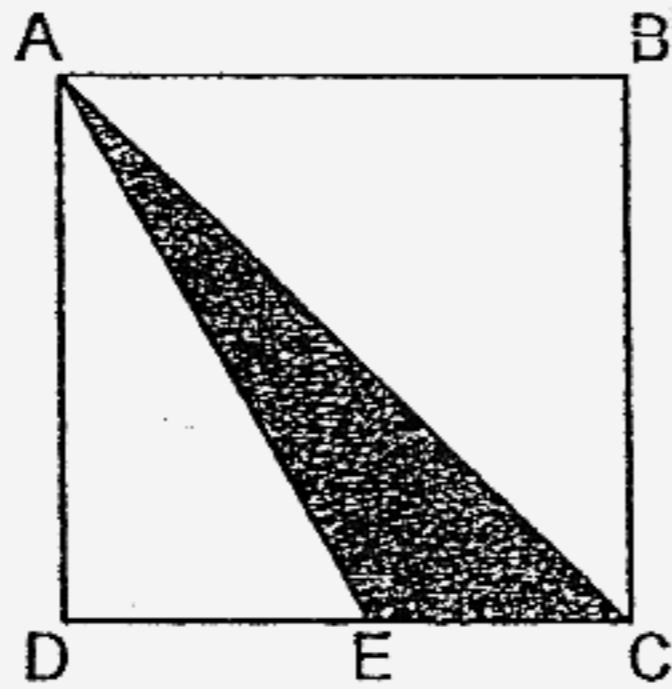
**Booklet A (20 marks)**

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. Which of the following numbers when rounded off to the nearest thousand is 180 000?

- (1) 179 499
- (2) 179 501
- (3) 180 549
- (4) 180 905

2. In the figure below, ABCD is a square. Point E is the midpoint of DC.



What fraction of the square ABCD is shaded?

- (1)  $\frac{1}{2}$
- (2)  $\frac{1}{3}$
- (3)  $\frac{1}{4}$
- (4)  $\frac{1}{6}$

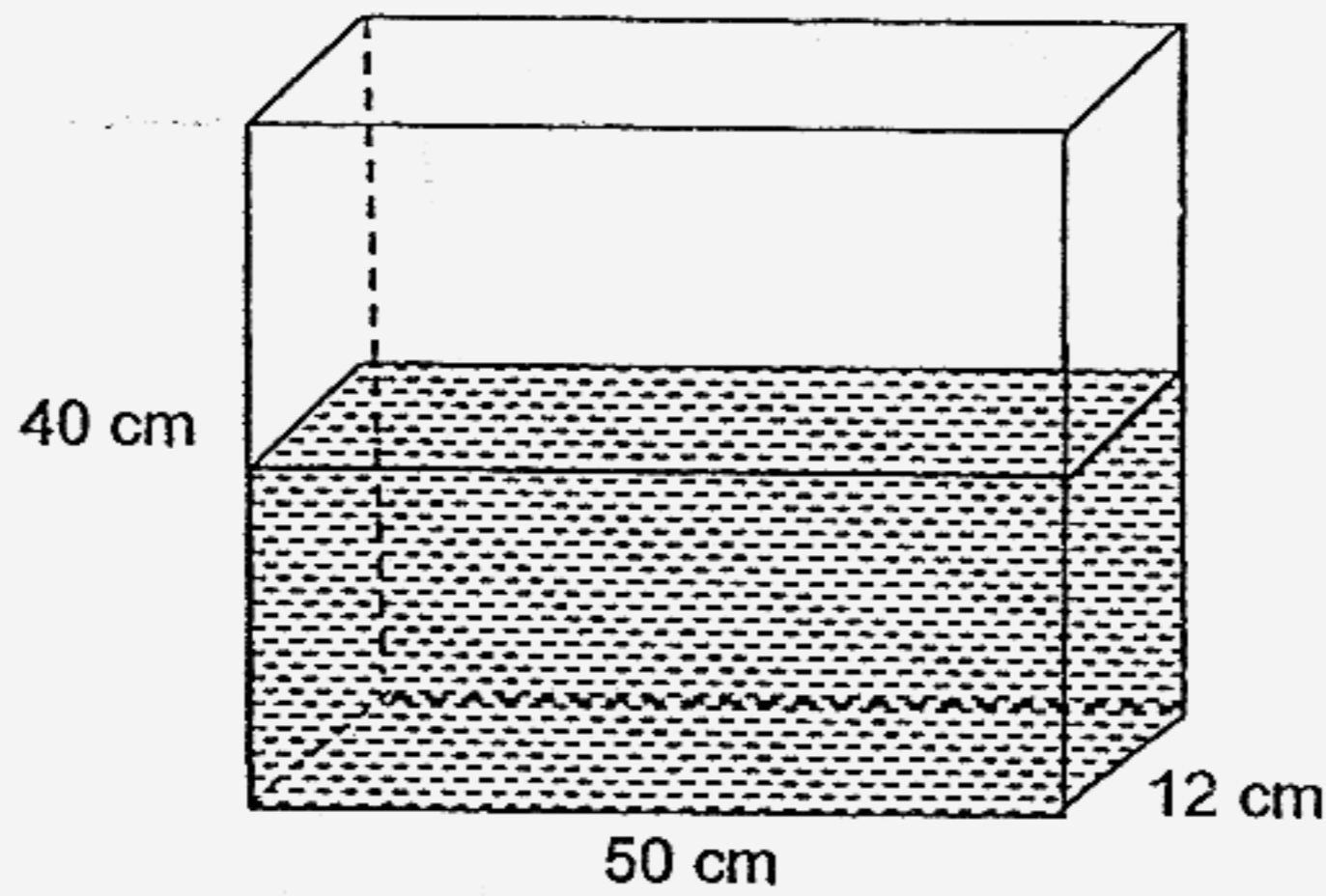
3. 4 tens, 50 tenths, 20 hundredths and 8 thousandths is the same as \_\_\_\_\_

- (1) 4.528
- (2) 40.528
- (3) 45.028
- (4) 45.208

4. 2 similar files and 2 similar pens cost \$12. Each file costs twice as much as each pen. How much does each file cost?

- (1) \$2
- (2) \$3
- (3) \$4
- (4) \$6

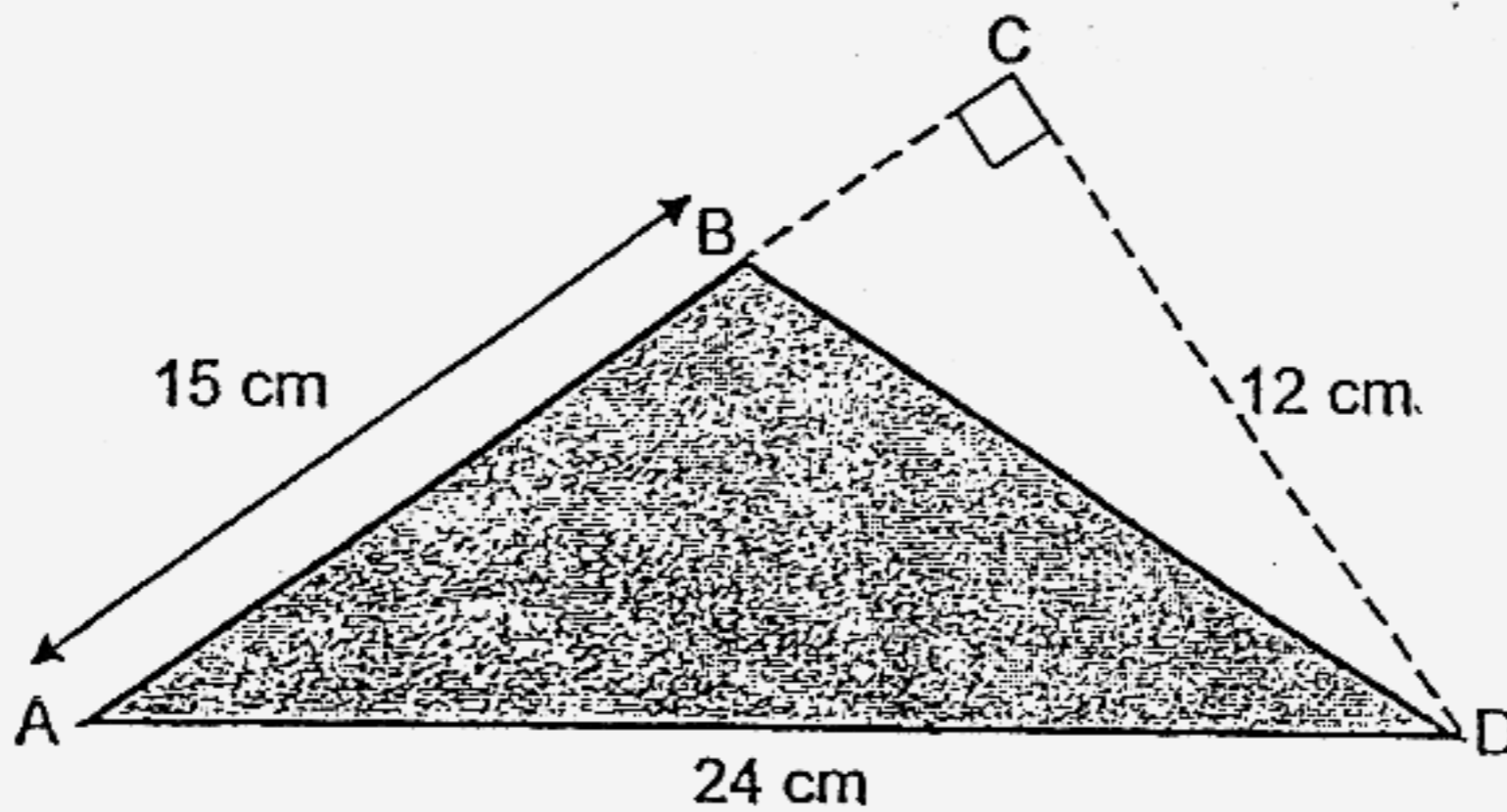
5. A container, 50 cm long, 12 cm wide and 40 cm high, is half-filled with water.



How much water was left in the container when 3 litres of water were used?

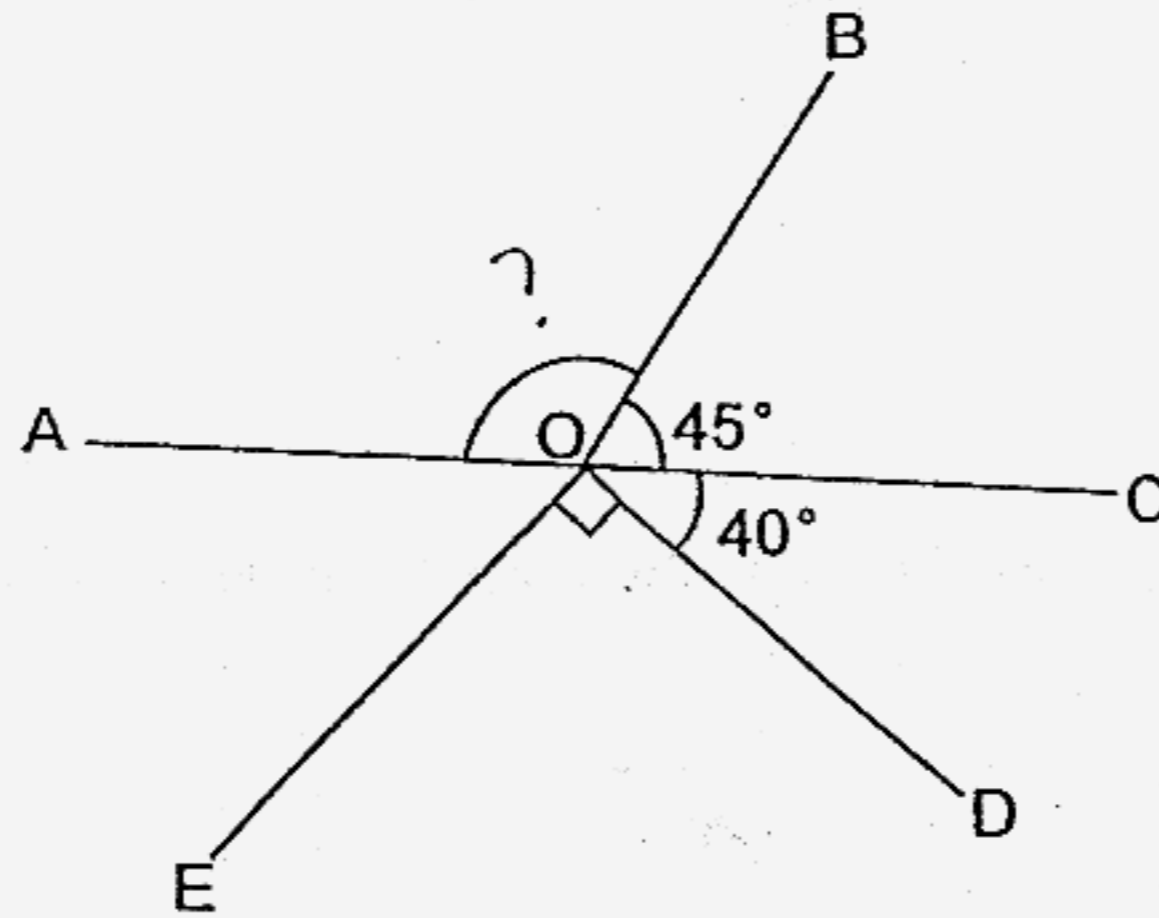
- (1) 9 ℓ
- (2) 12 ℓ
- (3) 20 ℓ
- (4) 21 ℓ

6. What is the area of the shaded triangle ABD?



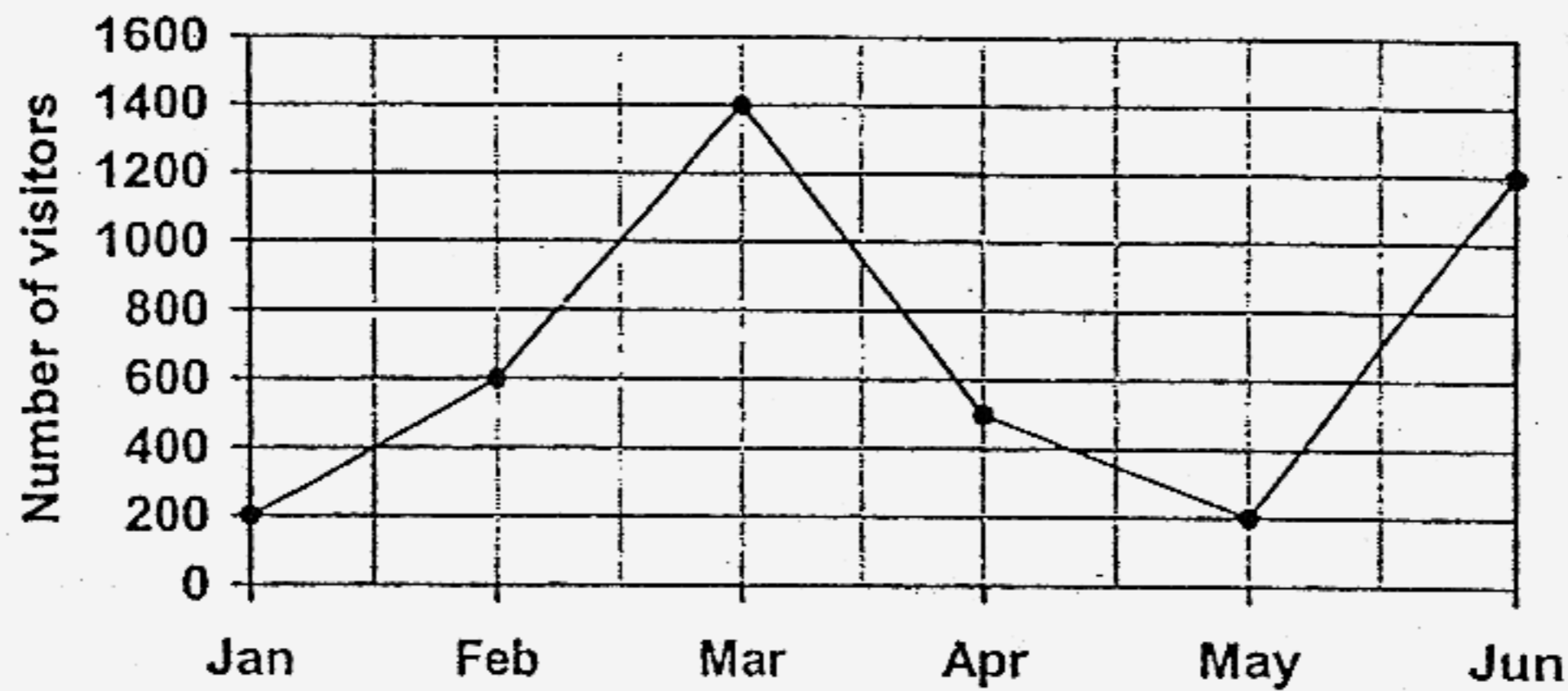
- (1) 90 cm<sup>2</sup>
- (2) 144 cm<sup>2</sup>
- (3) 180 cm<sup>2</sup>
- (4) 288 cm<sup>2</sup>

7. The figure below is not drawn to scale. AOC is a straight line. Find  $\angle AOB$ .



- (1)  $95^\circ$   
(2)  $125^\circ$   
(3)  $130^\circ$   
(4)  $135^\circ$
8. There are 1500 pupils in a school. The ratio of the number of boys to the number of girls in the school is 2 : 3. How many boys are there in the school?
- (1) 300  
(2) 500  
(3) 600  
(4) 900
9. Janice scored 96 marks out of 150 marks in an English test. What percentage did she score for the test?
- (1) 32%  
(2) 54%  
(3) 64%  
(4) 96%

10. The line graph shows the total number of visitors to a library in the first 6 months of the year. The number of visitors were recorded on the first day of each month.



In which month did the number of visitors increase the most?

- (1) Jan  
(2) Feb  
(3) Mar  
(4) May
11. Which one of the following fractions is arranged in descending order?

(1)  $\frac{8}{15}$ ,  $\frac{5}{9}$ ,  $\frac{4}{7}$ ,  $\frac{10}{13}$

(2)  $\frac{4}{7}$ ,  $\frac{5}{9}$ ,  $\frac{8}{15}$ ,  $\frac{10}{13}$

(3)  $\frac{10}{13}$ ,  $\frac{8}{15}$ ,  $\frac{5}{9}$ ,  $\frac{4}{7}$

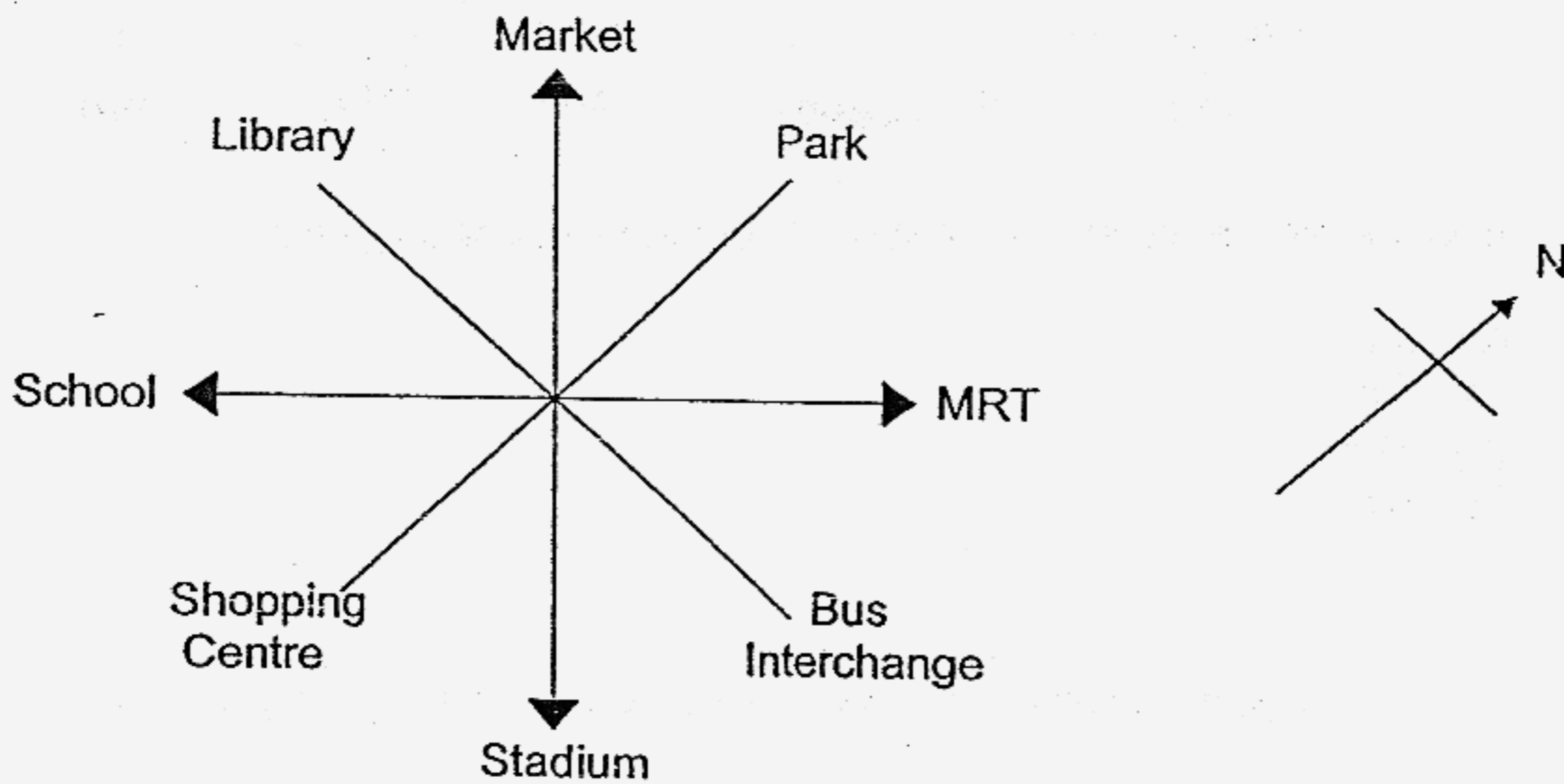
(4)  $\frac{10}{13}$ ,  $\frac{4}{7}$ ,  $\frac{5}{9}$ ,  $\frac{8}{15}$

12. Palm trees are planted 20 m apart along a straight road such that both ends of the road have a tree each. If there are 20 trees planted along the road, what is the length of the road?

- (1) 360 m  
(2) 380 m  
(3) 400 m  
(4) 420 m

13. The average of two numbers is 48. The difference is 12.  
What is the smaller number?

- (1) 30
- (2) 42
- (3) 54
- (4) 96



14. David is facing east after turning  $225^\circ$  clockwise.  
Where was David facing at first?

- (1) library
- (2) school
- (3) market
- (4) shopping centre

15. Mrs Li is 24 years older than her daughter. 4 years ago, the ratio of Mrs Li's age to her daughter's age is 5:1. What is the ratio of Mrs Li's age to her daughter's age in two years' time?

- (1) 3 : 1
- (2) 4 : 1
- (3) 13 : 1
- (4) 17 : 5

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Time : 2 h 15 min

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**SINGAPORE CHINESE GIRLS' SCHOOL**  
**SECOND SEMESTRAL ASSESSMENT 2006**  
**PRIMARY 5 EM 1 / 2**  
**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 : \_\_\_\_\_ ( )

Date : \_\_\_\_\_

Class : Primary 5 SY/C/G/SE/P

Time : 2 h 15 min

**Booklet B (80 marks)**

Questions 16 to 25 carry 1 mark each. Questions 26 to 35 carry 2 marks each.  
For each question, write your answer in the space provided.  
Give your answers in the units stated.

16. Using any three of the digits below, form the smallest three-digit number which is a multiple of 7.

3 9 0 5

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

17. Arrange these numbers in decreasing order.

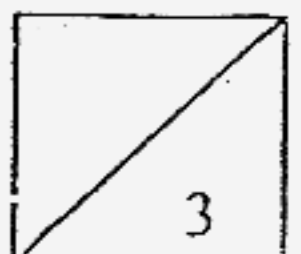
10.8, 10.88, 10.18, 10.818

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

18. In  $9.6 \div 30 = \square \times 10$ , the missing number in the box is \_\_\_\_\_.

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

Do not write  
in this column





19. Arrange these numbers in increasing order.

3 700 g , 3 kg 85 g ,  $3\frac{4}{5}$  kg , 3.725 kg

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in this column

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

20. Express  $6\frac{3}{8}$  m in centimetres.

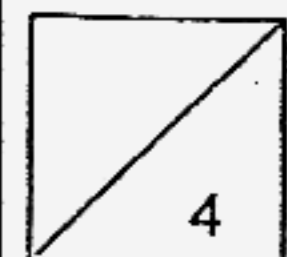
Ans: \_\_\_\_\_ cm

21. A tank 50 cm long, 40 cm wide and 20 cm high is  $\frac{3}{4}$  filled with water.  
How many more litres of water are needed to fill up the tank completely?

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

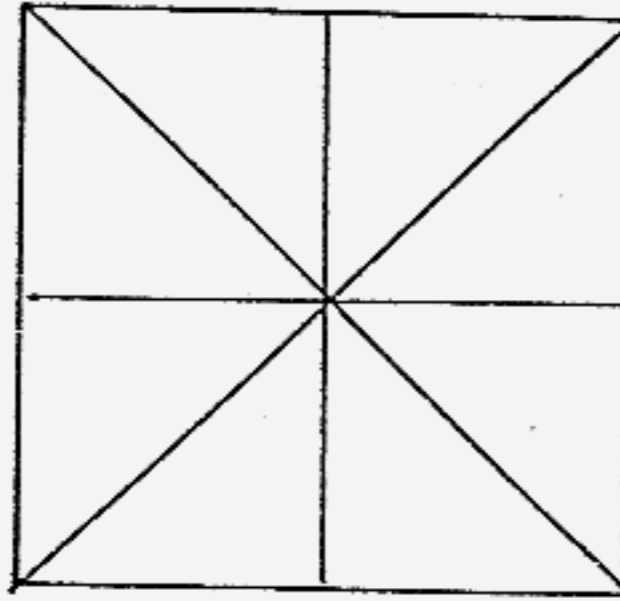
22. Express  $\frac{24}{40}$  as a percentage.

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

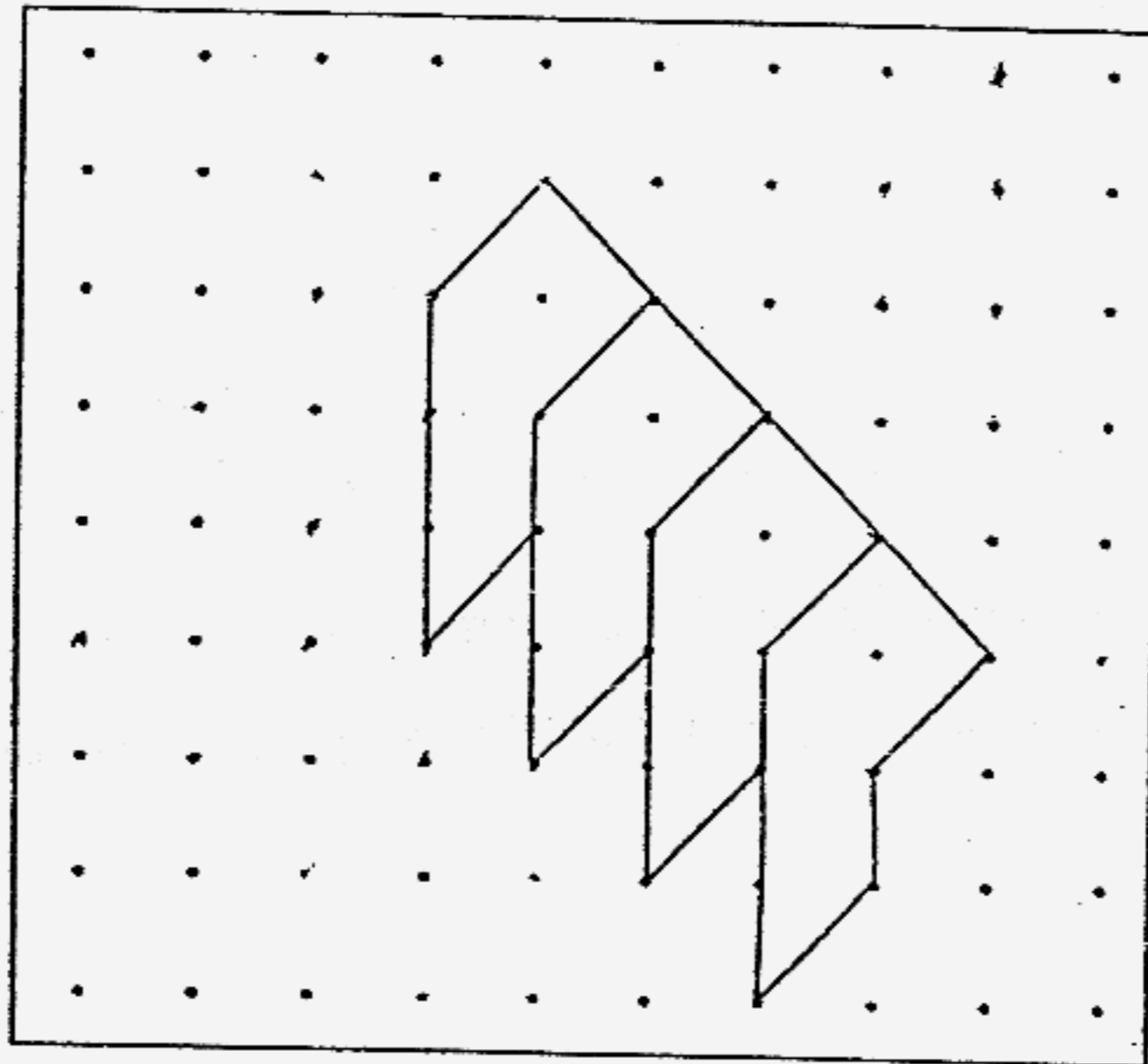


23. The figure below is made up of 8 identical triangles. Shade one or more of the triangles such that the square has only 2 lines of symmetry.

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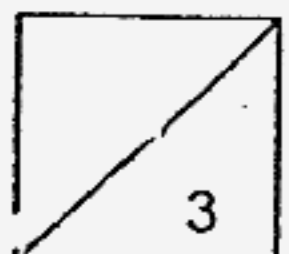


24. Extend the tessellation below by drawing 4 more of the unit shapes in the grid provided.



25. Mrs Lee took 2 hours to wrap 600 dumplings. What was the average number of dumplings that she wrapped per minute?

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.

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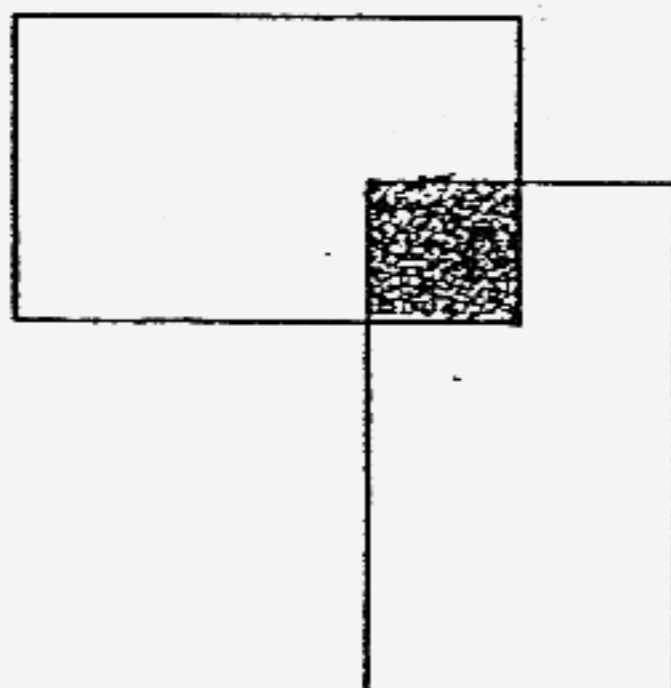
26. 3 similar handbags cost \$36 more than 4 similar wallets. If their total cost is \$396, find the cost of each handbag.

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

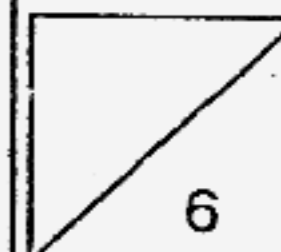
27. Mr Lee took 2 hours and 15 minutes to wash his car. He finished washing his car at 1.05 p.m. At what time did he start to wash his car?

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

28. The figure below is made up of 2 identical rectangles. The perimeter of each rectangle is 30 cm. The rectangles overlap and form the shaded square as shown in the figure below. The area of the square is  $9 \text{ cm}^2$ . Find the perimeter of the figure.

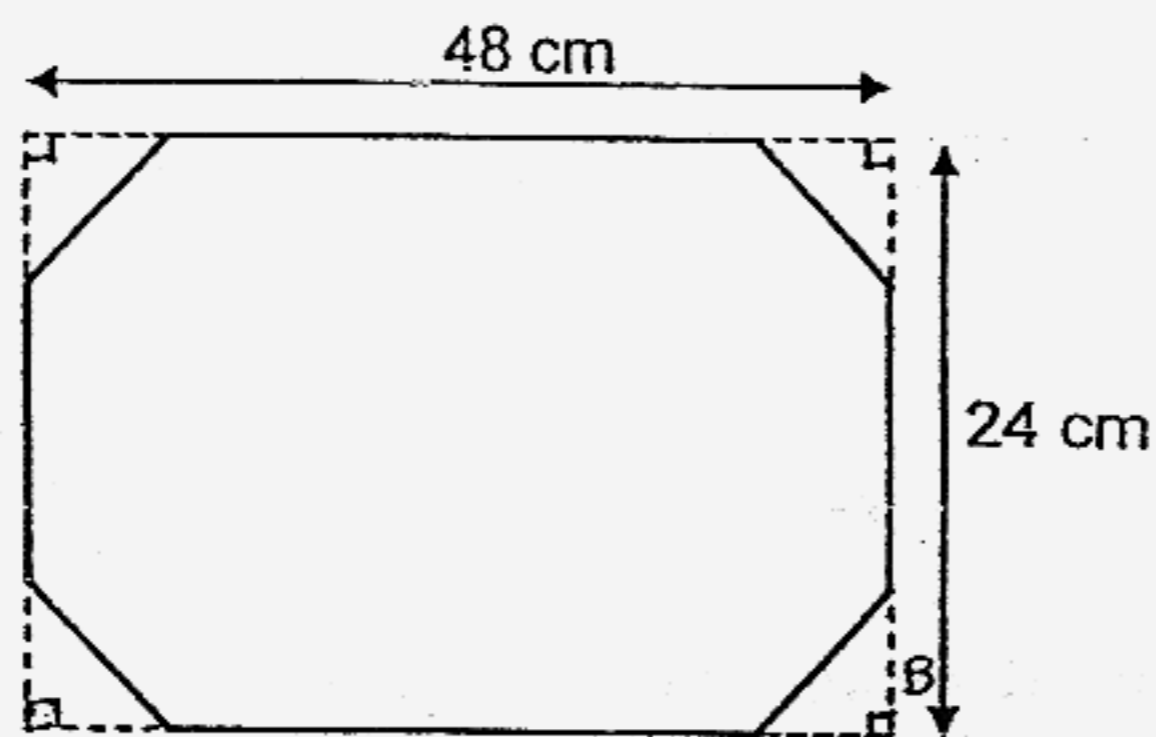


Ans: \_\_\_\_\_ cm



29. Jane had a rectangular piece of coloured paper measuring 48 cm by 24 cm. She cut out four identical isosceles triangles from each corner of the coloured paper as shown in the figure below. The height of each triangle is  $\frac{1}{4}$  the breadth of the paper. What is the area of the remaining paper?

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in this column



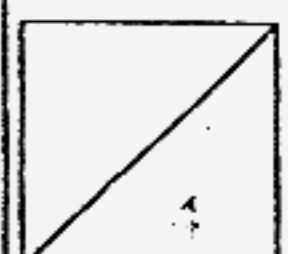
Ans: \_\_\_\_\_ cm<sup>2</sup>

30. The table shows the parking charges at a car park.

Time	Charge
First hour	\$1.20
Every additional $\frac{1}{2}$ hour or part thereof	\$0.50

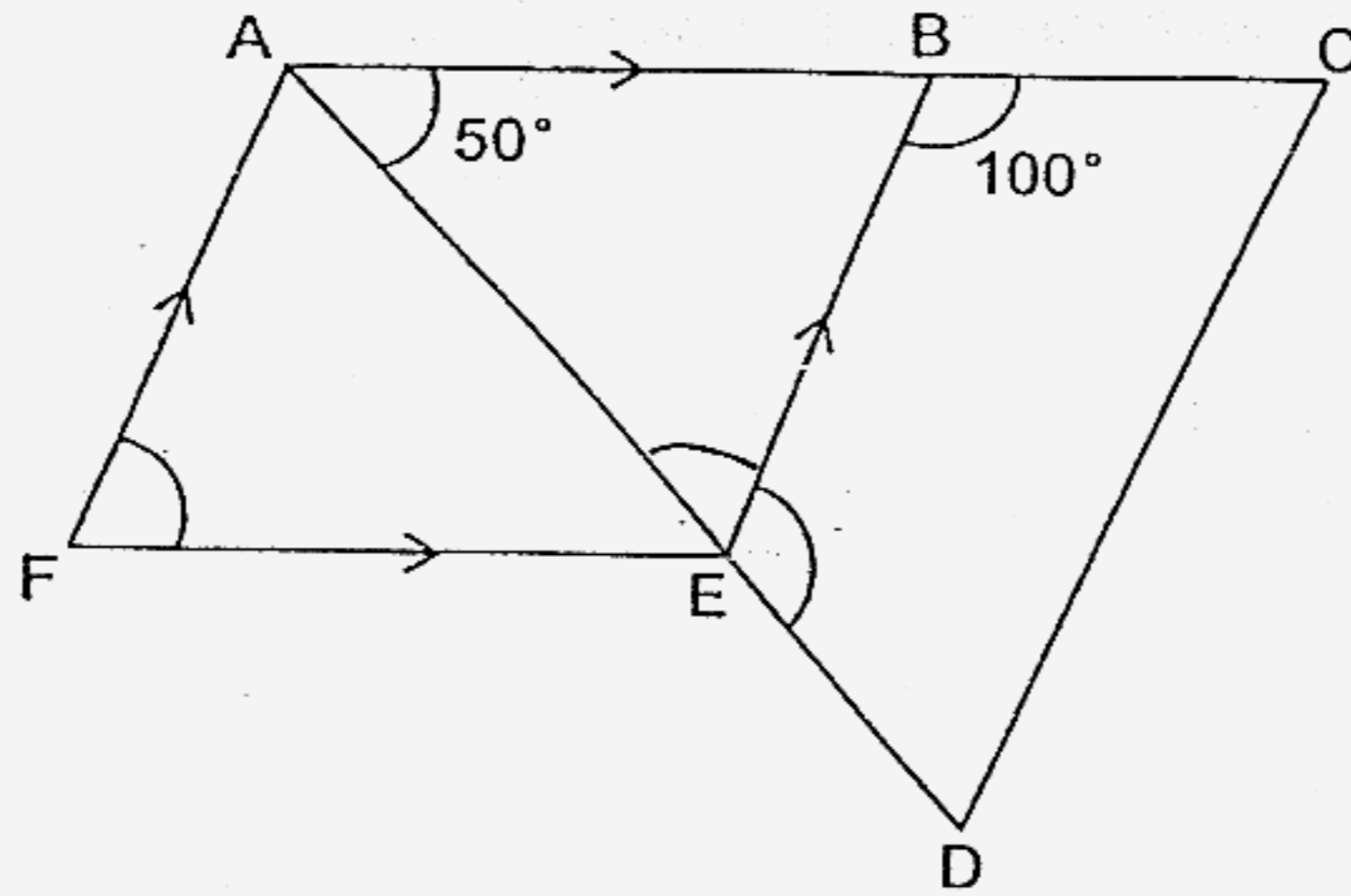
Mr Lim parked his car from 2.30 p.m. to 5.45 p.m.  
How much did he have to pay?

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



31. The figure below is not drawn to scale. ABEF is a rhombus. ABC and AED are straight lines.

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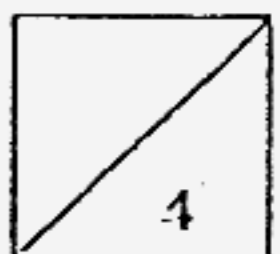
- a) Name an angle which is equal to  $\angle AFE$ .  
b) Find  $\angle BED$ .

Ans: (a)  $\angle$  \_\_\_\_\_ (1)

(b) \_\_\_\_\_<sup>o</sup> (1)

32. The average of four different numbers which are multiples of 3 is 9.  
Two of the numbers are 6 and 18.  
What are the remaining two numbers?

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



33. A secretary can type 210 words in 3 minutes.  
At this rate, how many words can she type in  $\frac{3}{5}$  hour?

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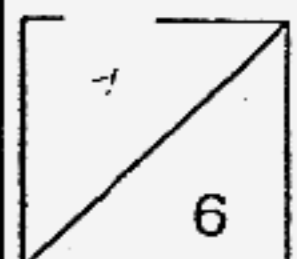
Ans: \_\_\_\_\_

34.  $\frac{3}{5}$  of Sally's money is equal to  $\frac{2}{3}$  of Jenny's money.  
What is the ratio of Jenny's money to Sally's money?

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

35. If 30% of a number is 150, what is  $\frac{1}{5}$  of the number?

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



Date : 6/10/06

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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.

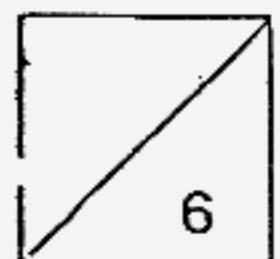
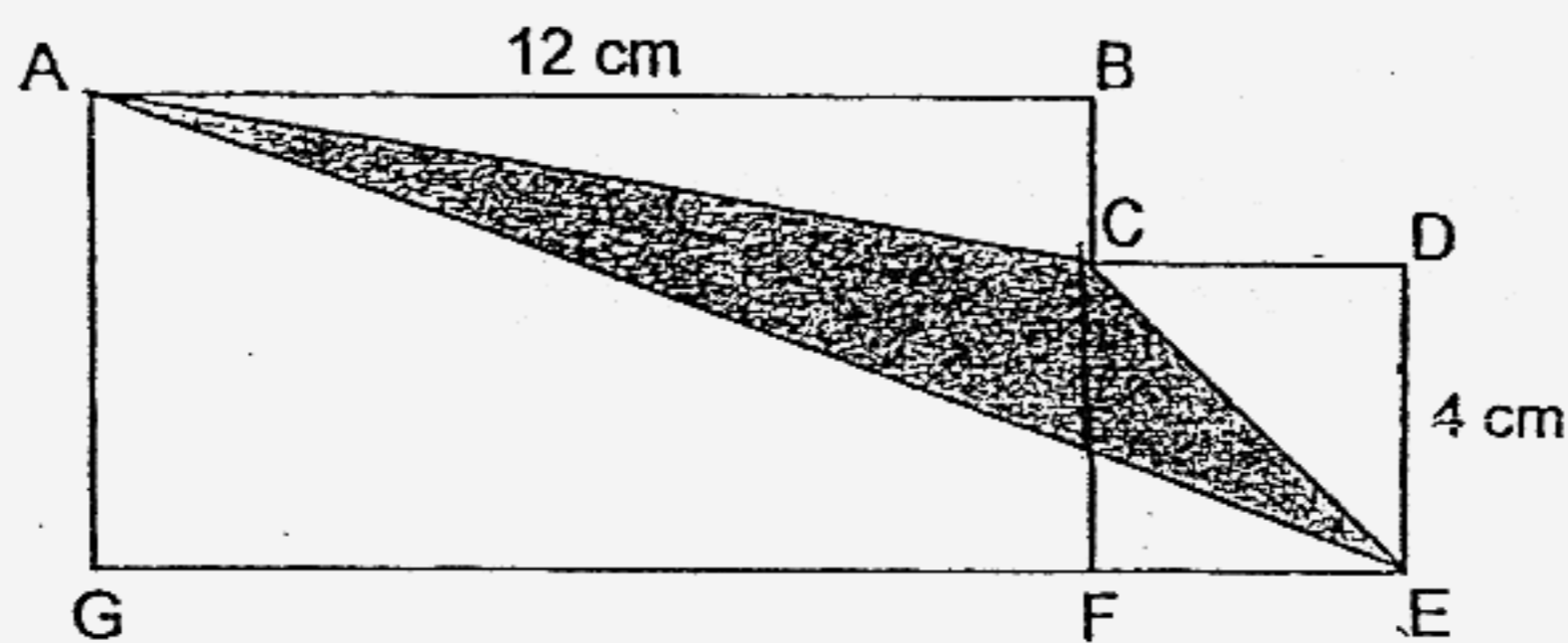
36. After giving \$16 to Ailin, Janice had \$4 less than Ailin.  
How much more money did Janice have than Ailin at first? (3m)

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in this column

37. On a farm, there were 9 more rabbits than chicks.  
They had a total of 108 legs.
- (a) How many rabbits were there on the farm? (2m)
- (b) How many chicks were there on the farm? (1m)

38. The figure below is made up of 4 similar rectangles. The perimeter of each rectangle is 18 cm. If the perimeter of the figure is 48 cm,  
(a) what is the breadth of each rectangle? (2 m)  
(b) What is the area of the figure? (1 m)

39. The figure is made up of a rectangle and a 4-cm square. The length of the rectangle is 12 cm and the breadth is  $1\frac{1}{2}$  times the length of the square. Find the shaded area. (3 m)





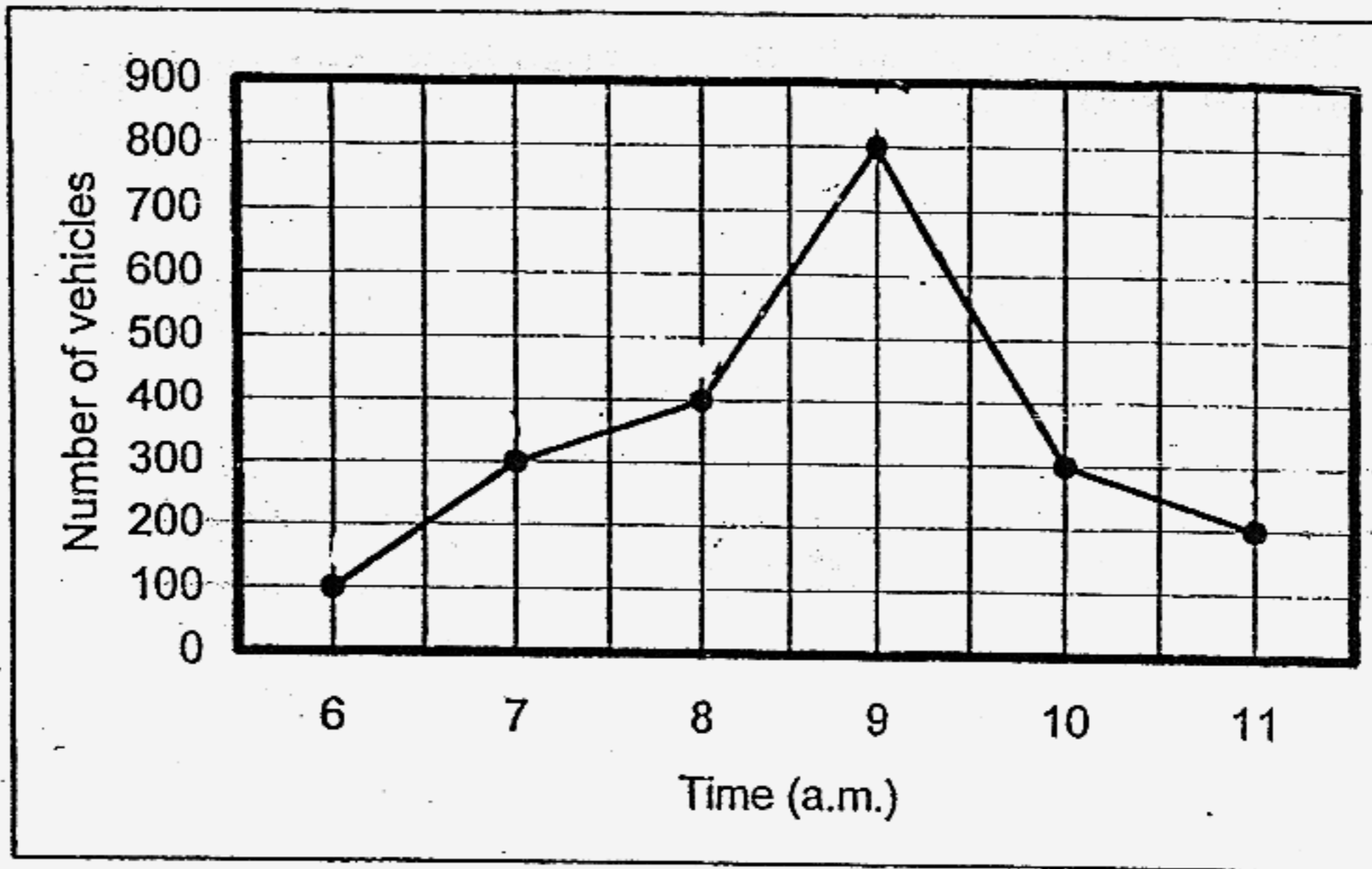
40. (a) What angle does the hour hand on a clock move through in half an hour? (1m)
- (b) What is the angle formed by the hour hand and the minute hand at half past three? (2m)

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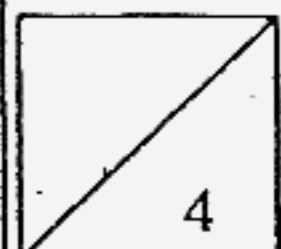
- 
41. The ratio of Kelly's age to her father's age is 2 : 7. Her father was 32 years old 10 years ago.
- (a) How old is Kelly? (2m)
- (b) What ~~was~~ <sup>will be</sup> the ratio of Kelly's age to her father's age in 8 years' time? (Express the answer in the simplest form) (1m)

42. The graph shows the number of vehicles travelling past a school between 6 a.m. and 11 a.m. on a certain day.

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- (a) What was the difference between the greatest number and the smallest number of vehicles? (1 m)
- (b) At what time was the number of vehicles twice the number of vehicles at 8 a.m.? (1 m)
- (c) What is the hourly average number of vehicles that travelled past the school from 6 a.m. to 11 a.m.? (2 m)



43. (a) What is the sum of all the whole numbers from 1 to 20?  
(b) What is the average of the sum of all the whole numbers from 1 to 20?

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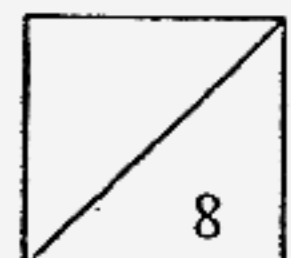
Ans: (a) \_\_\_\_\_ (2)

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

- 
- 44(a) Draw a triangle ABC such that  $AB = 8 \text{ cm}$ ,  $BC = 6 \text{ cm}$  and  $\angle ABC = 150^\circ$ . (2)

- 44(b) Given that AB is the base of the triangle, draw and measure the height of the triangle ABC. (2)

Ans: (b) \_\_\_\_\_



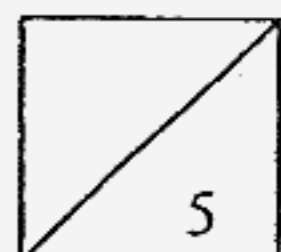
45. Mr. Tan had 75 more apples than oranges. After he had sold  $\frac{4}{5}$  of the apples and  $\frac{3}{4}$  of the oranges, he had <sup>285</sup>290 fruits left.

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- (a) How many apples did he sell?
- (b) What fraction of the fruits sold were oranges?

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

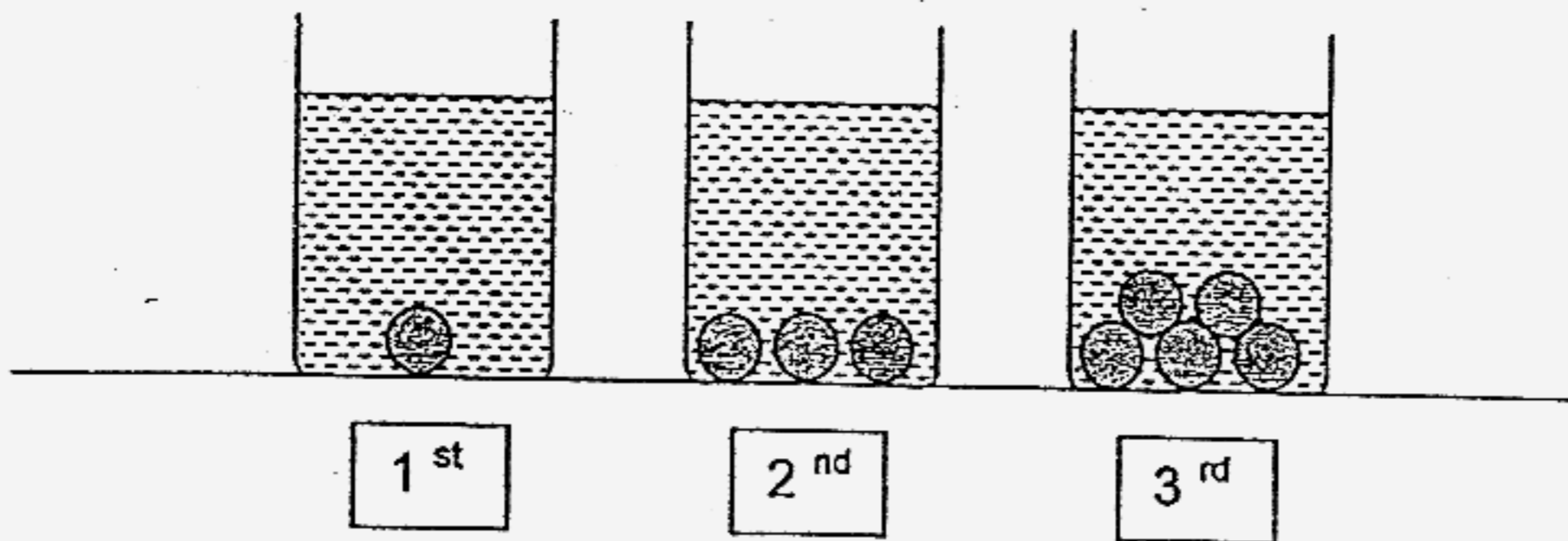
(b) \_\_\_\_\_ (2)



46. Sam put some marbles into 3 similar beakers and poured 450 ml of water into the first beaker. Then he filled the remaining two beakers with water until the water levels in all the 3 beakers were the same.

The volume of each marble is  $25 \text{ cm}^3$ .

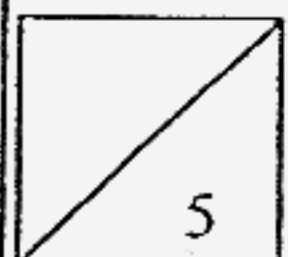
- (a) What was the total volume of water in the three beakers?  
(b) If all the water is poured into a rectangular container, measuring 20 cm long, 12 cm wide and 10 cm high, what will be the height of the water level?



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

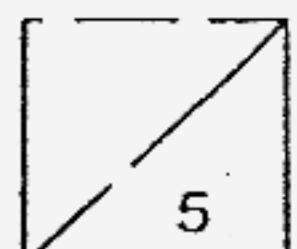
(b) \_\_\_\_\_ (2)



47. Mr Li takes 2 hours to polish his car on his own while his son needs 3 hours. How long would both Mr Li and his son take to polish the car together? (Express your answer in h and min.)

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



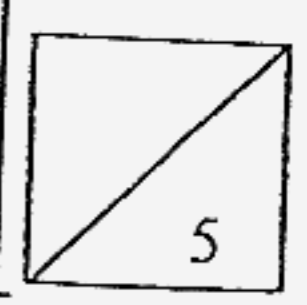
48. Alice gave \$480 to her father and 25% of the remaining salary to her mother. After giving 43% of her salary to her parents, she saved 15% of her salary and spent the rest of salary.

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- (a) How much did she spend?
- (b) How much did she give to her mother?

Ans: (a) \_\_\_\_\_ (4)

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



END OF PAPER

# Singapore Chinese Girls Primary School

## Answer Sheets

Q1	Q2	Q3	Q4	Q5
2	3	4	3	1
Q6	Q7	Q8	Q9	Q10
1	4	3	3	4
Q11	Q12	Q13	Q14	Q15
5	3	3	4	2

16. 350

17. 10.88, 10.818, 10.8, 10.18

18.  $9.6 \div 3$   
 $= 0.96 \div 3$   
 $= 0.32$   
 $= 0.32 \div 10$   
 $= 0.032$

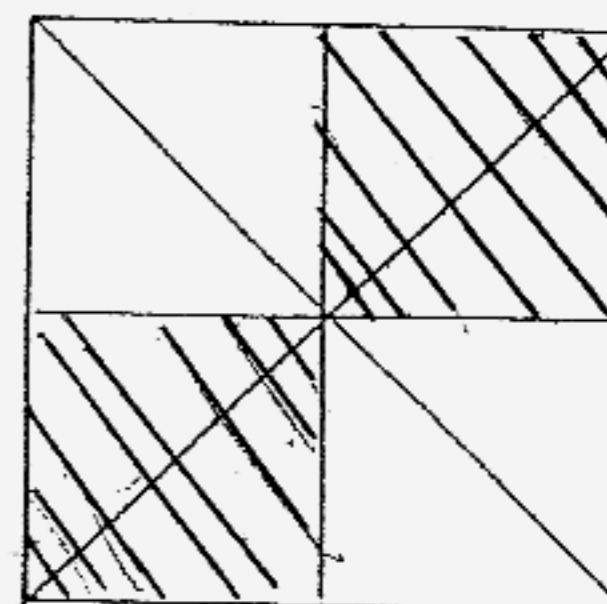
19. 3kg 85g, 3700g, 3.725g,  $3\frac{4}{5}$ kg

20.  $6\frac{3}{8}$   
 $= 6\frac{75}{200}$   
 $= 6\frac{37.5}{100}$   
 $= 637.5$

21.  $4u = 50 \times 40 \times 20$   
 $= 3000 \times 20$   
 $= 40000\text{cm}^3$   
 $1u = 10000\text{cm}^3$

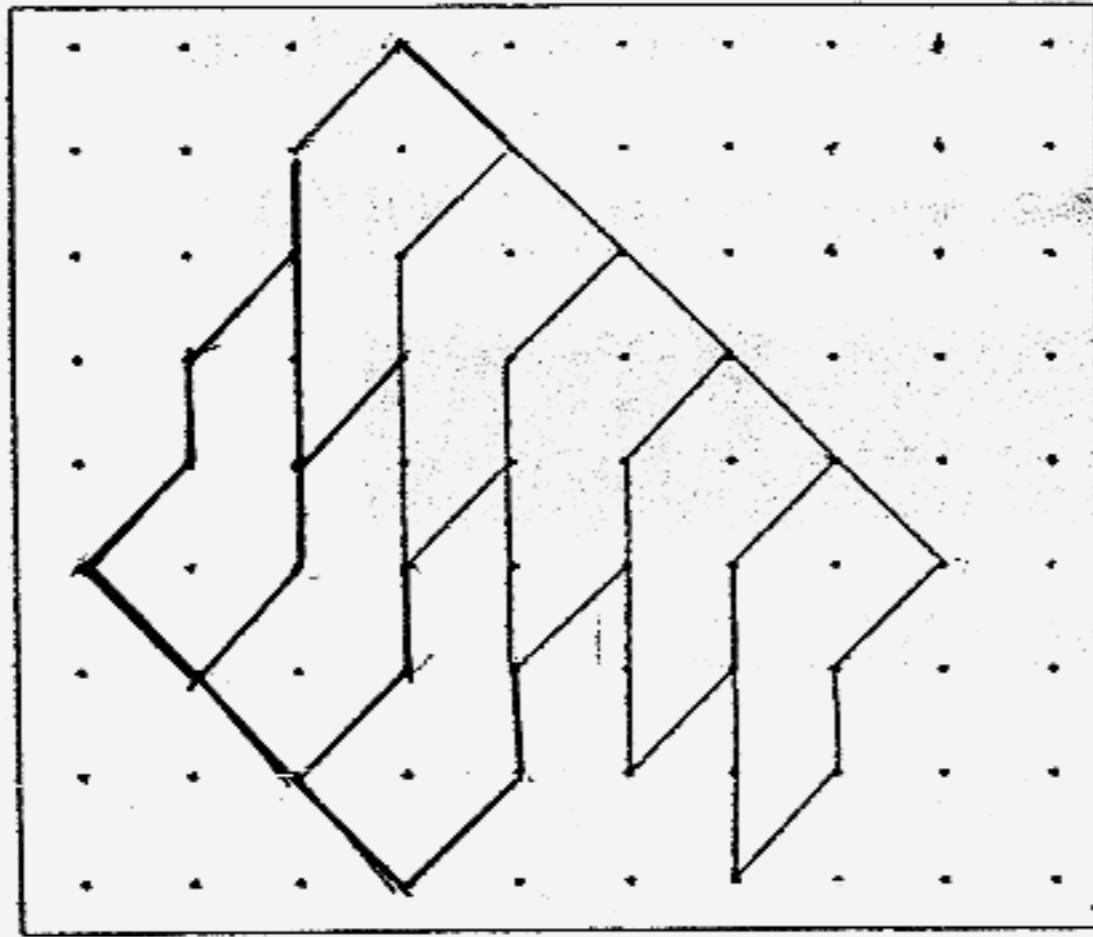
22.  $\frac{24}{40} = \frac{6}{10}$   
 $= \frac{6}{10}$   
 $= \frac{60}{100} \times 100\%$   
 $= 60\%$

23.





24.



25.  $2h = 600$   
 $1h = 300$   
 $60 \text{ min} = 300$   
 $1 \text{ min} = 5$

26.  $\$(396 - 36) = \$360$   
 $8u = \$360$   
 $4u = \$180$   
 $\$180 + \$36 = \$216$   
 $3u = \$216$   
 $1u = \$72$

27.  $1.05\text{pm} = 1305\text{hrs}$   
 $1305 - 0215 = 10.50\text{am}$

28.  $9 = 3 \times 3$   
 $3 + 3 + 3 + 3 = 12$   
 $30 + 30 - 12 = 60 - 12$   
 $= 48$

29.  $48 \times 24 = 2263\text{cm}^2$   
 $24 \div 4 = 6$   
 $= \frac{1}{2} \times 6 \times 6 \times 2$   
 $= 72\text{cm}^2$   
 $1152 - 72 = 1080\text{cm}^2$

30.  $50 \times 5 = \$2.50$   
 $\$2.50 + \$1.20 = \$3.70$

31.  $\angle ABE = 180^\circ - 100^\circ$   
 $= 80^\circ$   
 $\angle BED = 180^\circ - 50^\circ$   
 $= 130^\circ$   
 a)  $\angle ABE$                       b)  $130^\circ$

32.  $9 \times 4 = 36$   
 $36 - 6 - 18 = 12$   
 $12 = 9 \text{ and } 3$

33.  $3 \text{ mins} = 210$   
 $36 \text{ mins} = 2520 \text{ words}$

34. S : J  
 9 : 10

35.  $\frac{1}{5} \times 100\% = 20\%$   
 $30\% = 150$   
 $20\% = 100$

$$36. \quad \begin{aligned} \$ (16 - 4) &= \$12 \\ \$12 + \$16 &= \$28 \end{aligned}$$

Jannice has \$28.00 more than Ailin at first

$$37. \quad \begin{aligned} 9 \times 4 &= 36 \\ 108 - 36 &= 72 \\ 4 + 2 &= 6 \\ 72 \div 6 &= 12 \text{ (chick)} \\ 12 + 9 &= 21 \text{ (rabbit)} \end{aligned}$$

There are 21 rabbits and 12 chick in the farm.

$$38a. \quad \begin{aligned} 18 \times 4 &= 72\text{cm} \\ 72\text{cm} - 48\text{cm} &= 24\text{cm} \\ 24\text{cm} \div 4 &= 6\text{cm} \\ 6\text{cm} \div 2 &= 3\text{cm} \end{aligned}$$

The breadth of each rectangle is 3cm

$$38b \quad \begin{aligned} 18 \times 4 &= 72\text{cm}^2 \\ \text{Area of the figure is } &\underline{72\text{cm}^2} \end{aligned}$$

$$39. \quad \begin{aligned} 1u &= 24 \\ 1\frac{1}{2} &= 4 + 2 \\ &= 6 \\ \frac{1}{2} \times 12 \times 2 &= 12\text{cm}^2 \\ \frac{1}{2} \times 4 \times 4 &= 8\text{cm}^2 \\ \frac{1}{2} \times 16 \times 6 &= 48\text{cm}^2 \\ 12 \times 6 &= 72\text{cm}^2 \\ 4 \times 4 &= 16\text{cm}^2 \\ 72 + 16 &= 88 \\ 88 - (48 + 12 + 8) & \\ 88 - 68 &= 20\text{cm}^2 \end{aligned}$$

The shaded area is 20cm<sup>2</sup>

40a.  $15^\circ$

40b.  $75^\circ$

41a.  $32 + 10 = 42$

$7u = 42$

$2u = 12$

Kelly is **12 years old**

41b.  $12 + 8 = 20$

$42 + 8 = 60$

$20 : 50$

$2 : 5$

The ration is  $2 : 5$

42a  $800 - 100 = \underline{\mathbf{700\ vehicles}}$

42b. **9am**

42c.  $200 + 300 + 800 + 400 + 300 + 100$

$= 2100$

$= 2100 \div 6$

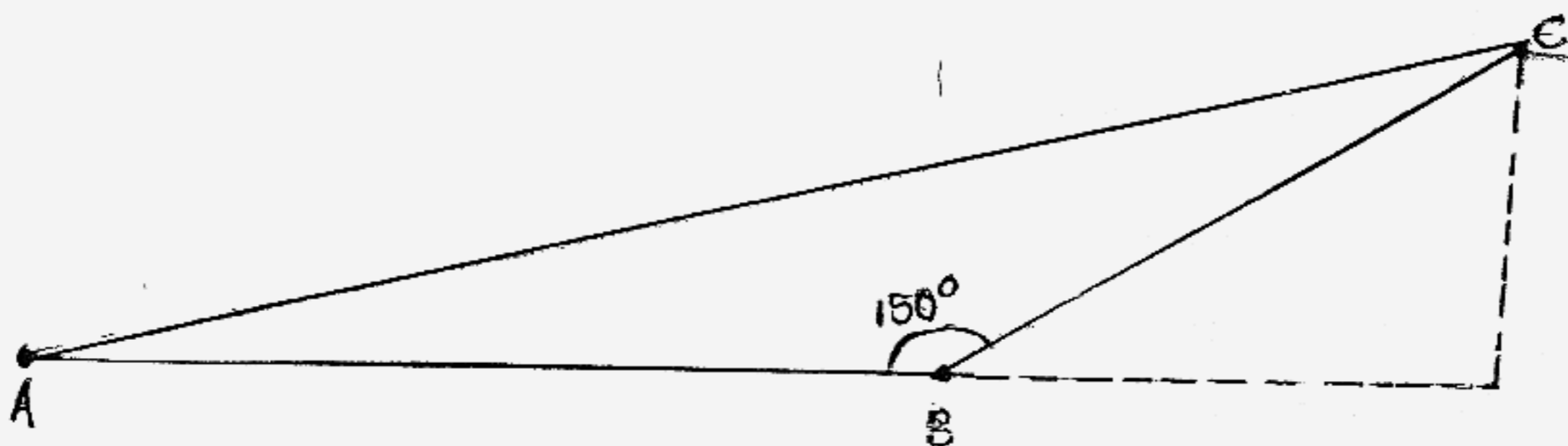
$= \underline{\mathbf{350\ vehicles}}$

43a.  $20 \div 2 = \mathbf{10}$

$21 \times 10 = \mathbf{210}$

43b.  $210 \div 20 = \mathbf{10.5}$

44a.



44b. 3cm

45a. Mr Tan = 75 + orange + apple

$$\frac{1}{5} \text{ apple} + \frac{1}{4} \text{ orange} = 285 \text{ (left)}$$

$$\frac{1}{5} \text{ apple} + \frac{a-75}{4} = 285$$

$$\frac{4a + 5a - 375}{20} = 285$$

$$9a - 375 = 285 \times 20$$

$$9a = 5700 - 375$$

$$9a = 6075$$

$$a = 675$$

$$\text{Apple} = \frac{4}{5} \times 675 = \underline{540}$$

He sold 540 apples

45b.  $675 - 75 = 600$

$$\text{Orange} = \frac{3}{4} \times 600 = 450$$

$$= \frac{450}{990} = \frac{9}{11}$$

The ratio is  $\frac{9}{11}$

46a.  $450 + 25 = 475$

$$475 - 25 - 25 - 25 = 400$$

$$475 - (25 \times 5)$$

$$475 - 125$$

$$= 350$$

$$450 + 350 + 460$$

$$= 1200\text{ml}$$

46b.  $1200 \div (20 \times 12)$

$$= 1200 \div 240$$

$$= 5\text{cm}$$

47. Mr Li  
 $2\text{hr} = 1\text{car}$   
 $1\text{h} = \frac{1}{2}$

Son  
 $3\text{h} = 1\text{car}$   
 $1\text{h} = \frac{1}{3}$

$$1\text{h} = \frac{1}{2} + \frac{1}{3}$$

$$= \frac{5}{6}$$

$$\frac{5}{6} = 1\text{hr}$$

$$\frac{6}{6} = 1\frac{1}{5}\text{hr}$$

48.  $100\% - 15\% = 85\%$   
 $85\% - 43\% = 60\%$   
 $60\% - 15\% = 42\%$  (Spend)

$$\frac{1}{4} = 25\% \quad \frac{1}{5} = 15\%$$

$$\frac{5}{5} = 100\%$$

$$\frac{5}{5} - \frac{1}{5} = \frac{4}{5} \text{ (85\%)}$$

$$\frac{4}{5} \times 25 = \$20$$

1% = \$20  
 100% = \$2000.00  
 42% = **\$840.00 (Spend)**

48b)  $43\% = 43 \times \$20$   
 $= \$860$   
 $= \$860 - \$480$   
 $= \$380.00$

She gave her mother **\$380.00**