HENRY PARK PRIMARY SCHOOL
P6 PRELIMINARY EXAMINATION 2007
MATHEMATICS
BOOKLET A

Name: _____ ( ) **Class: P6** _____

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.

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

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 ovals on the Optical Answer Sheet. (20 marks)

1. What is the value of the digit 5 in 238.154?

   (1) 5 tens

   (2) 5 tenths

   (3) 5 hundredths

   (4) 5 thousandths ( )

2. Express $6\frac{1}{25}$ kg in g.

   (1) 640 g

   (2) 6 004 g

   (3) 6 040 g

   (4) 6 400 g ( )

3. Express 40 min as a fraction of $1\frac{1}{5}$ h.

   (1) $\frac{5}{9}$

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

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

   (4) $\frac{3}{400}$ ( )

4. The number of pupils in a school is about 2500. What could be the actual number of pupils in the school if it has been rounded off to the nearest hundred?

   (1) 2 449

   (2) 2 495

   (3) 2 551

   (4) 2 599 ( )

5. A tank holds 2 400 ml of water when it is $\frac{5}{8}$ full. How many millilitres of water will it hold if it is $\frac{3}{4}$ full?

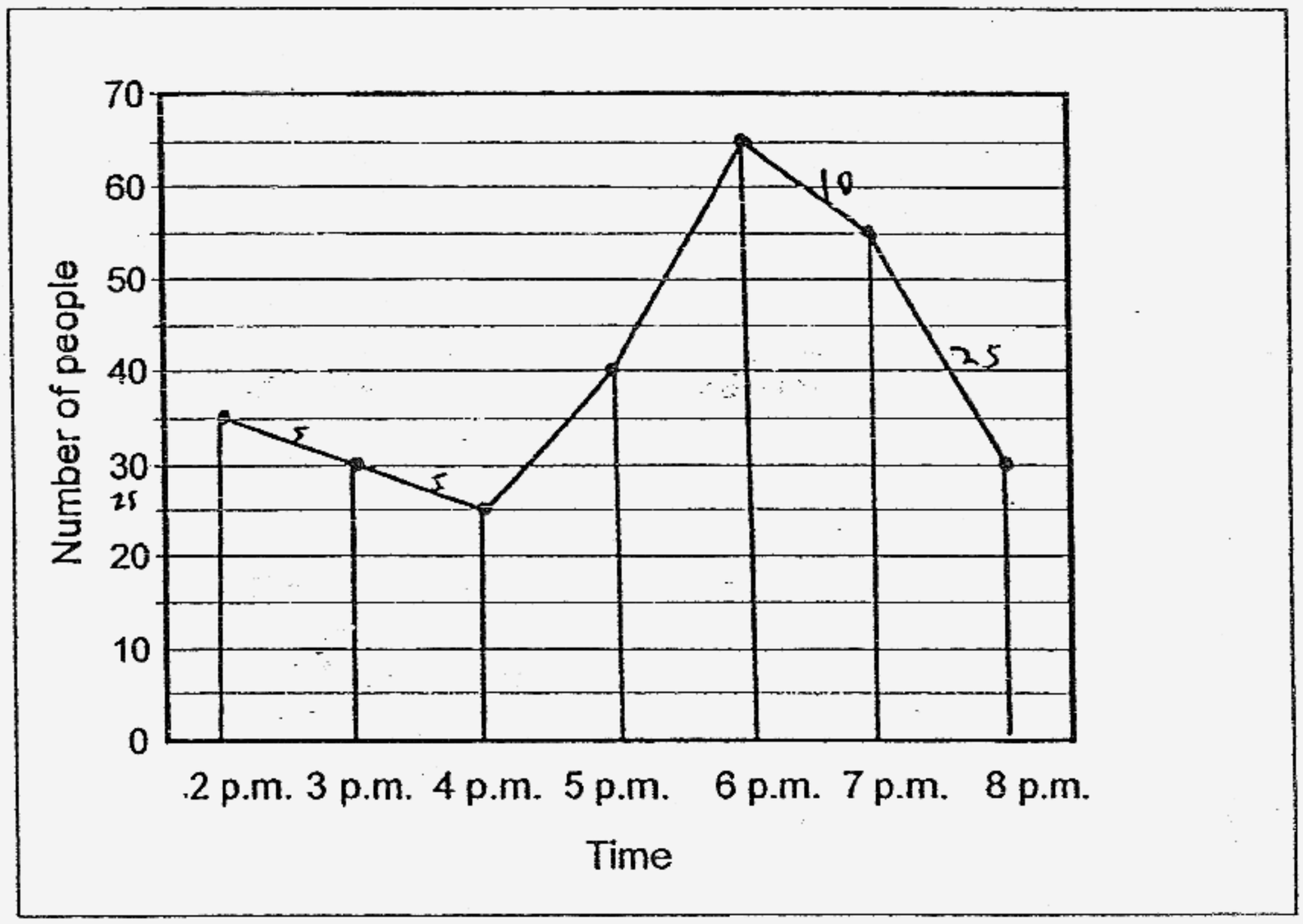
(1) 1 440 ml

(2) 1 500 ml

(3) 1 800 ml

(4) 2 880 ml ( )

6. The graph below shows the number of people in a supermarket from 2 p.m. to 8 p.m.



Which one of the following intervals shows the biggest decrease in the number of people in the supermarket?

(1) 2 p.m. to 3 p.m.

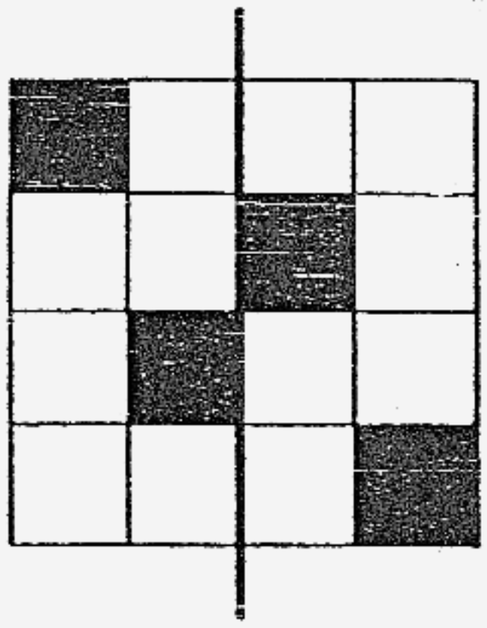
(2) 3 p.m. to 4 p.m.

(3) 6 p.m. to 7 p.m.

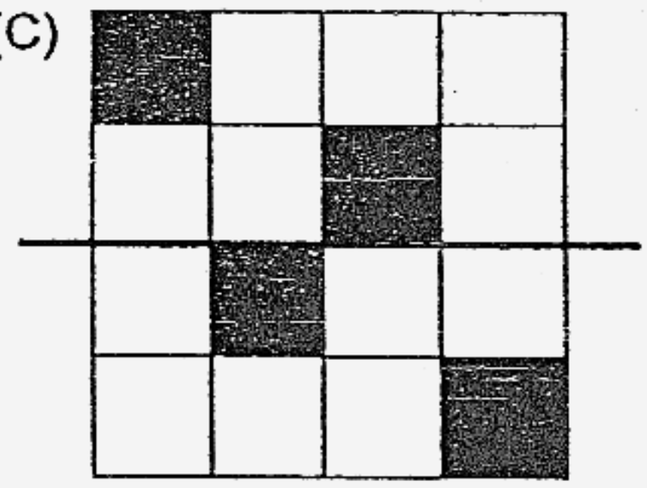
(4) 7 p.m. to 8 p.m. ( )

7. Which of the following figures shows a correct line of symmetry?

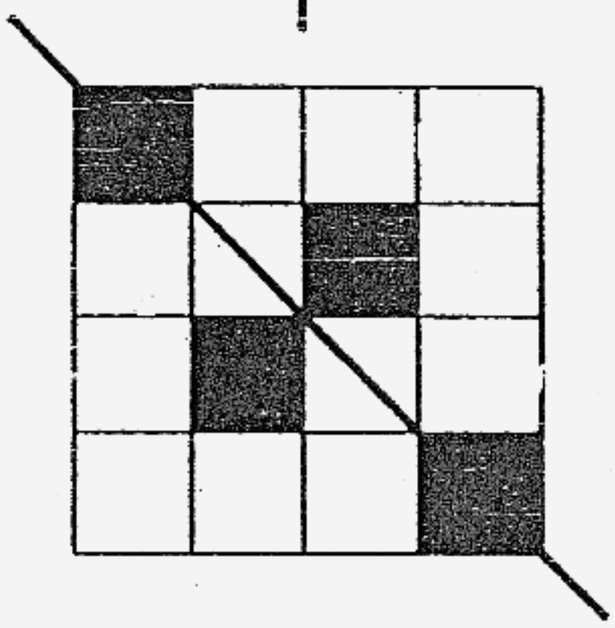
(A)



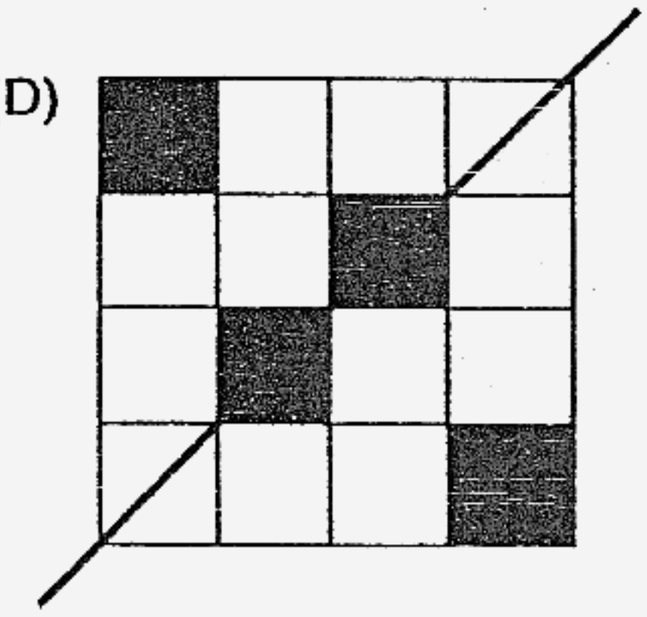
(C)



(B)



(D)



(1) A and B

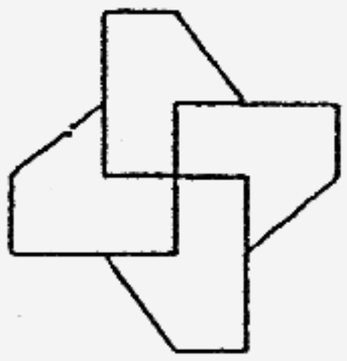
(2) B and C

(3) B and D

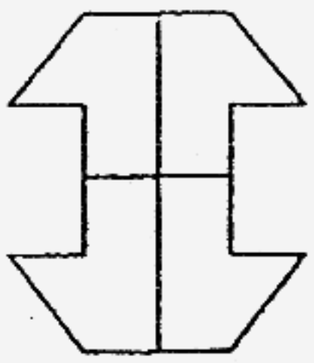
(4) C and D ( )

8. Which one of the following can be tessellated?

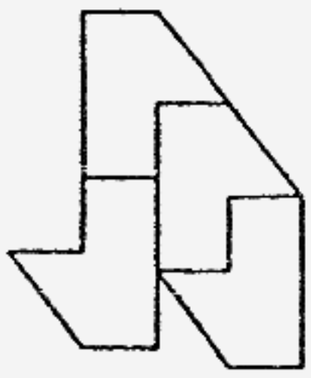
(1)



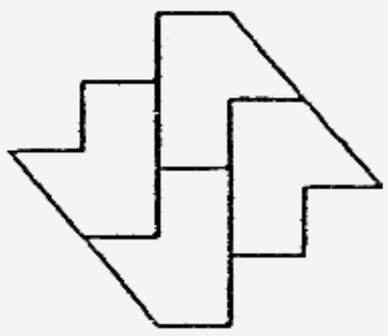
(3)



(2)



(4)



( )

9. The cost of a ruler is $1.50. The total cost of two identical sharpeners is 50¢ more than the ruler. What is the ratio of the cost of the ruler to that of the sharpener?

(1) 6 : 1

(2) 6 : 7

(3) 3 : 2

(4) 3 : 4 ( )

10. What is the value of (12 + 24) ÷ 3 x 6 – 2 x 5?

(1) 10

(2) 50

(3) 62

(4) 350 ( )

11. A cyclist travelled 600 m in 3 minutes. What was his average speed?

(1) 12 km/h

(2) 18 km/h

(3) 20 km/h

(4) 36 km/h ( )

12. There were 40 passengers in a ferry. 24 of them were male passengers. How many percent more male than female passengers were in the ferry?

(1) 60%

(2) 50%

(3) 40%

(4) 20% ( )

13. Liza ate $\frac{1}{3}$ of a cake and gave away $\frac{1}{8}$ of the remainder. What is the fraction of the cake left?

(1) $\frac{5}{24}$

(2) $\frac{19}{24}$

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

(4) $\frac{7}{12}$ ( )

14. The average cost of the books in a box was \$15 at first. When a book which costs \$27 is placed in the box, the average cost becomes \$18. How many books are in the box now?

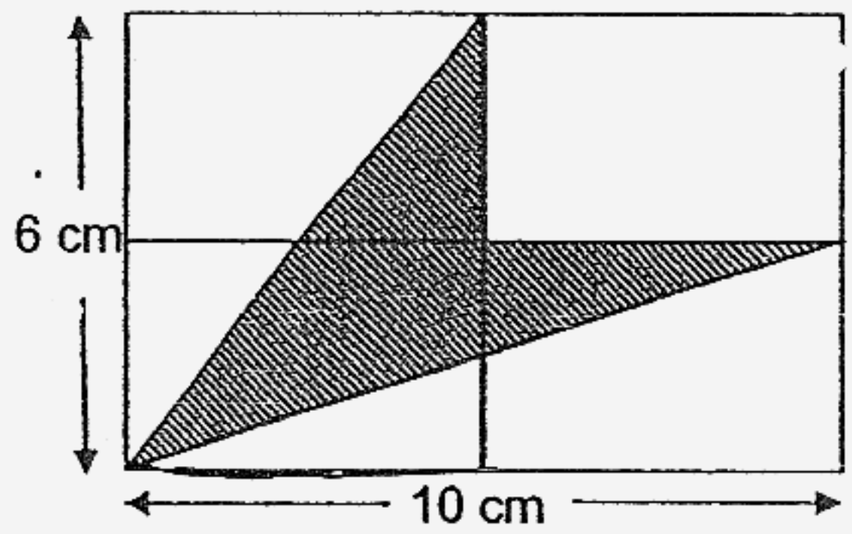
(1) 3

(2) 4

(3) 6

(4) 9 ( )

15. The figure is made up of 4 identical rectangles. Find the area of the shaded part.



(1) 45 cm^2

(2) 30 cm^2

(3) 20 cm^2

(4) 15 cm^2 ( )

HENRY PARK PRIMARY SCHOOL

P6 PRELIMINARY EXAMINATION 2007

MATHEMATICS

BOOKLET B

(PART 1)

Name: _____ _____( ) **Class: P6**_____

20 Questions

30 Marks

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

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

Questions 16 to 25 carry 1 mark each. Write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

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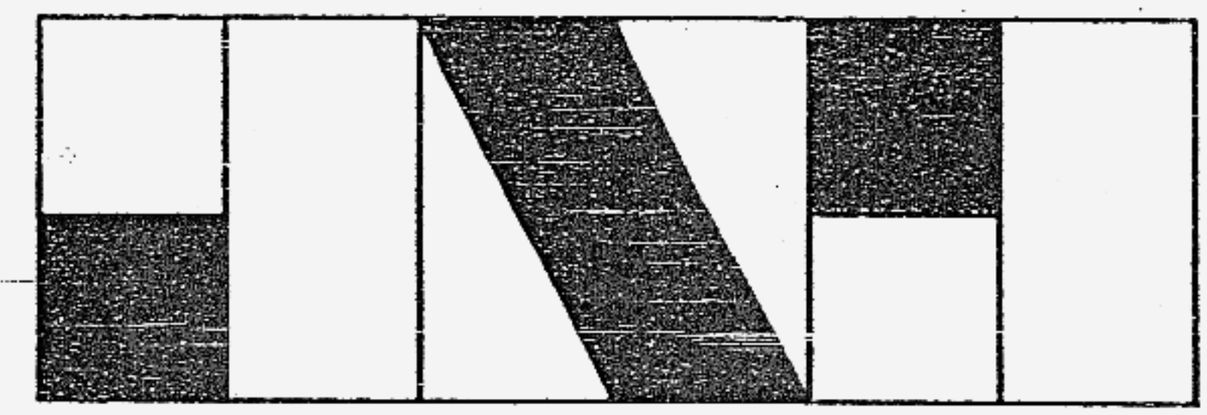
16. What fraction of the figure below is shaded?

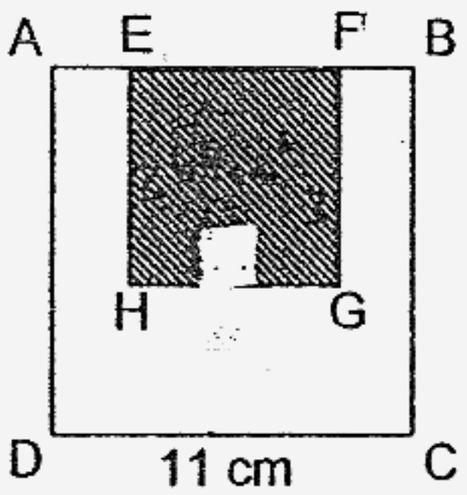


Ans : _____

17. Express $2\frac{8}{9}$ as a decimal rounded off to 1 decimal place.

Ans : _____

18. In the figure, ABCD and EFGH are squares. The area of EFGH is 64 cm^2. Find the perimeter of the unshaded region.

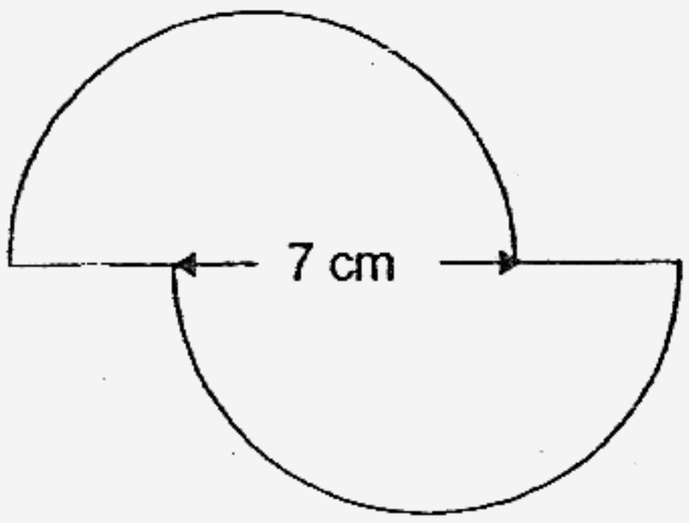


Ans : _____ ___ cm

19. A rectangular tank, 50 cm long and 40 cm wide, is half-filled with water. Another 20 litres of water is needed to fill the tank to the brim. What is the height of the tank?

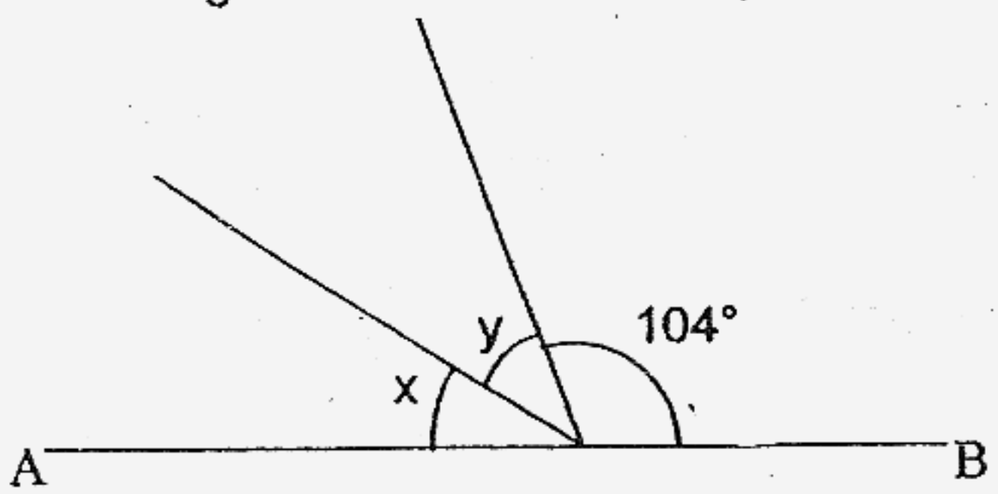
Ans : _____ cm

20. The figure is made up of 2 semi-circles of diameter 10 cm. Find the perimeter of the figure. (Take $\pi = 3.14$)



Ans : _____ cm

21. In the figure not drawn to scale, AB is a straight line and $\angle x = \angle y$. Find $\angle x$.

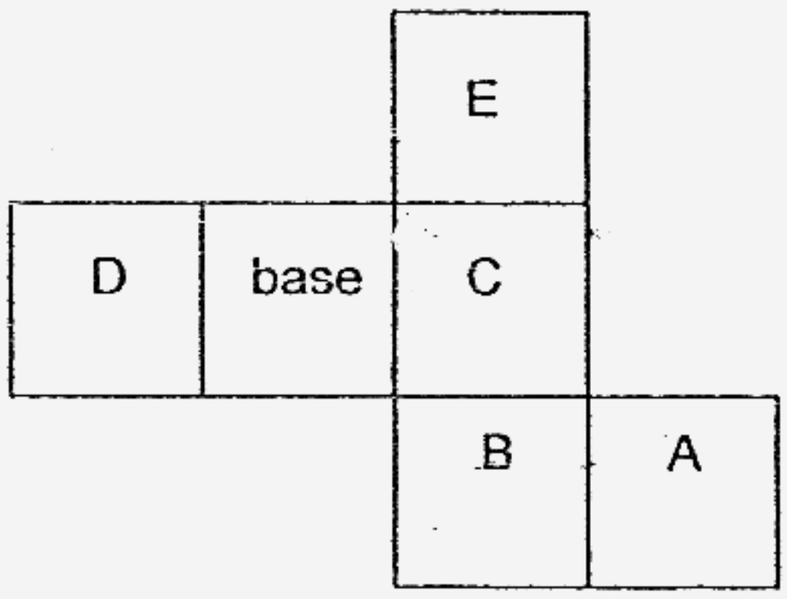


Ans : _____ °

22. A printer can print 200 cards in 8 minutes. At this rate, how many cards can it print in $\frac{1}{4}$ hour?

Ans : _____

23. The figure below is a net of a cube. Which one of the faces is the top of the cube?



Ans : 

24. If 30% of a number is 135; what is the number?

Ans : _____

25. Joel is *k* years older than his brother. If his brother is 5 years old, how old is Joel?

Ans : _____ years old

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. (20 marks)

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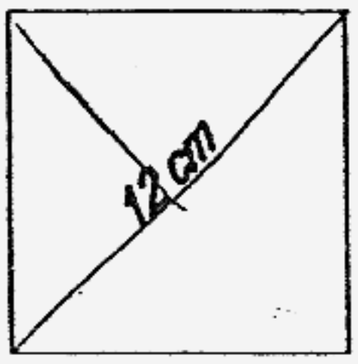
26. 8 packets of French fries cost $20. What is the maximum number of packets of French fries I can buy with $32?

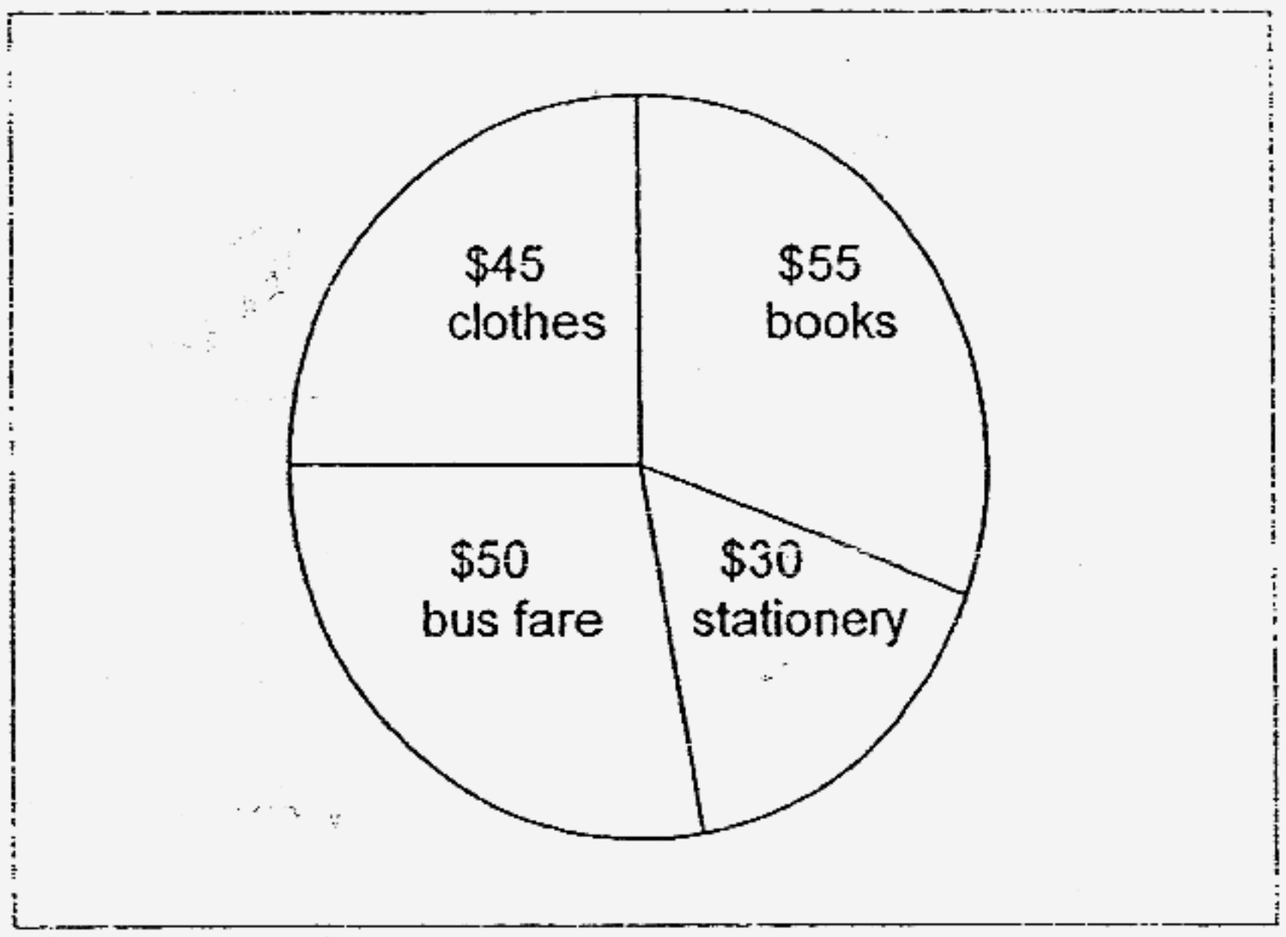
Ans : _____

27. The square has a diagonal of length 12 cm. Find its area.



Ans : _____ cm^2

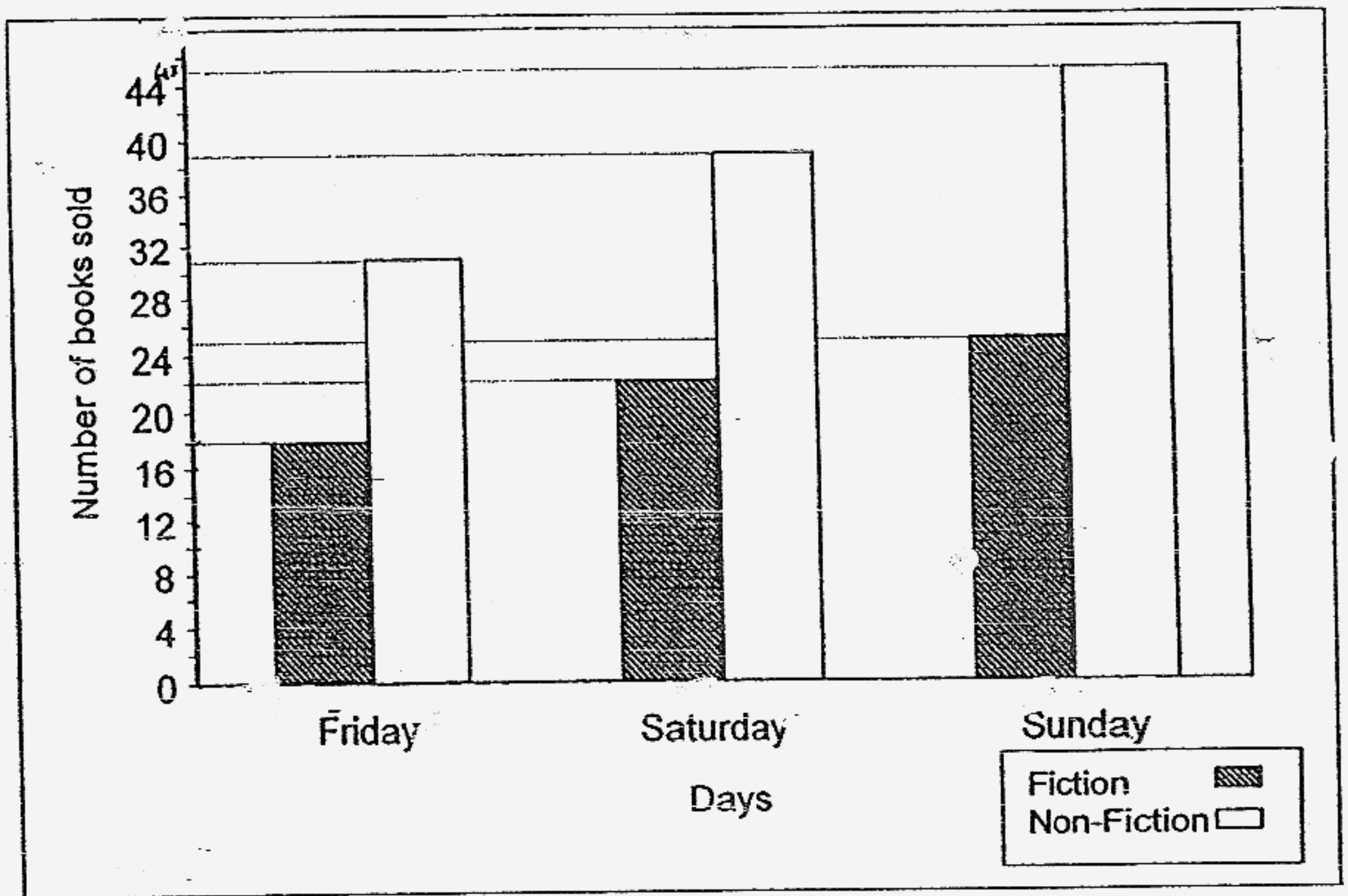
28. The pie chart below shows how Ming spent a month's allowance his parents had given him.



What fraction of his monthly allowance is spent on bus fare and stationery? Give your answer in the simplest form.

Ans : _____

29. The bar graph shows the number of fiction and non-fiction books sold by ABC Bookshop in the first 3 days of a book fair.



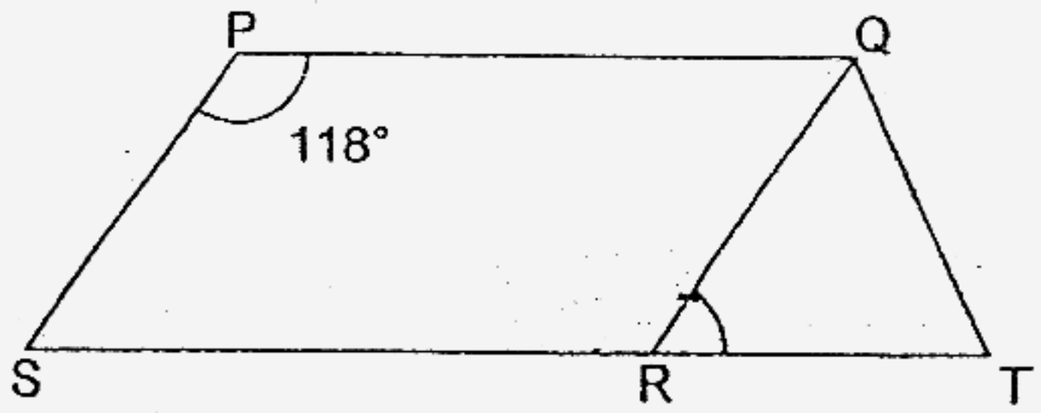
Find the ratio of the total number of books to the total number of fiction books in its simplest form.

Ans : _____

30. Ben and Jerry shared an amount of money in the ratio of 3 : 5 respectively. After Ben spent $20, the ratio of the amount of money Ben and Jerry had became 1 : 2. How much money did Jerry have?

Ans : $ _____

31. PQRS is a parallelogram. SRT is a straight line. Find ∠QRT.



Ans : _____ °

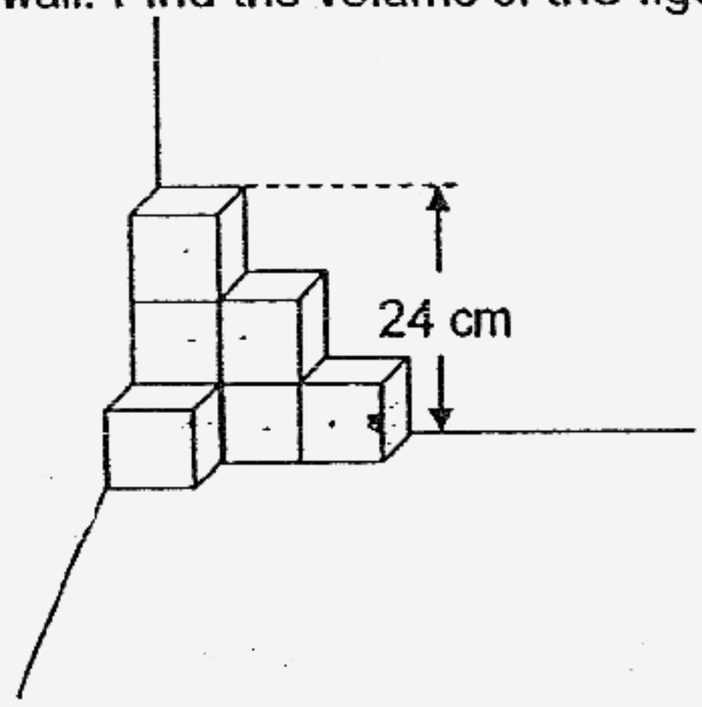
32. 3 apples and 2 oranges cost $2.15. 1 apple and 1 orange cost $0.85. What is the cost of 1 orange?

Ans : $_____

33. A rectangular sheet of cardboard measures 34 cm by 24 cm. What is the maximum number of rectangular pieces that can be cut from it if each piece measures 6 cm by 4 cm?

Ans : _____

34. The figure is made up of some identical cubes. It is placed in a corner of the wall. Find the volume of the figure.



Ans : _____ cm^3

35. In a triangle, Angle P is 150% of Angle Q and Angle Q is 50% of Angle R. Find Angle R.

Ans : _____ °

HENRY PARK PRIMARY SCHOOL
P6 PRELIMINARY EXAMINATION 2007
MATHEMATICS
BOOKLET B
(PART 2)

Name: _____( ) **Class: P6**_____

13 Questions

50 Marks

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

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

READ AND FOLLOW INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

For questions 36 to 48, show your working clearly in the space provided for each question and write your answers in the space provided.
The number of marks available is shown in [ ] at the end of each question or part-question. (50 marks)

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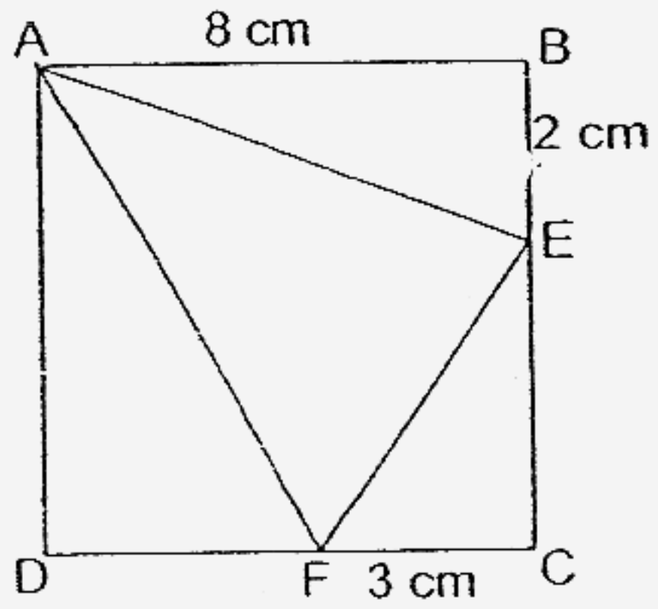
36. Joseph has $m. Kenny has 3 times as much money as Joseph. Leo has half the amount of money Joseph and Kenny has altogether. How much money do the 3 boys have altogether?

Ans : _____ [3]

37. In the figure, ABCD is a square of side 8 cm. BE is 2 cm and FC is 3 cm. Find the area of ΔAEF.



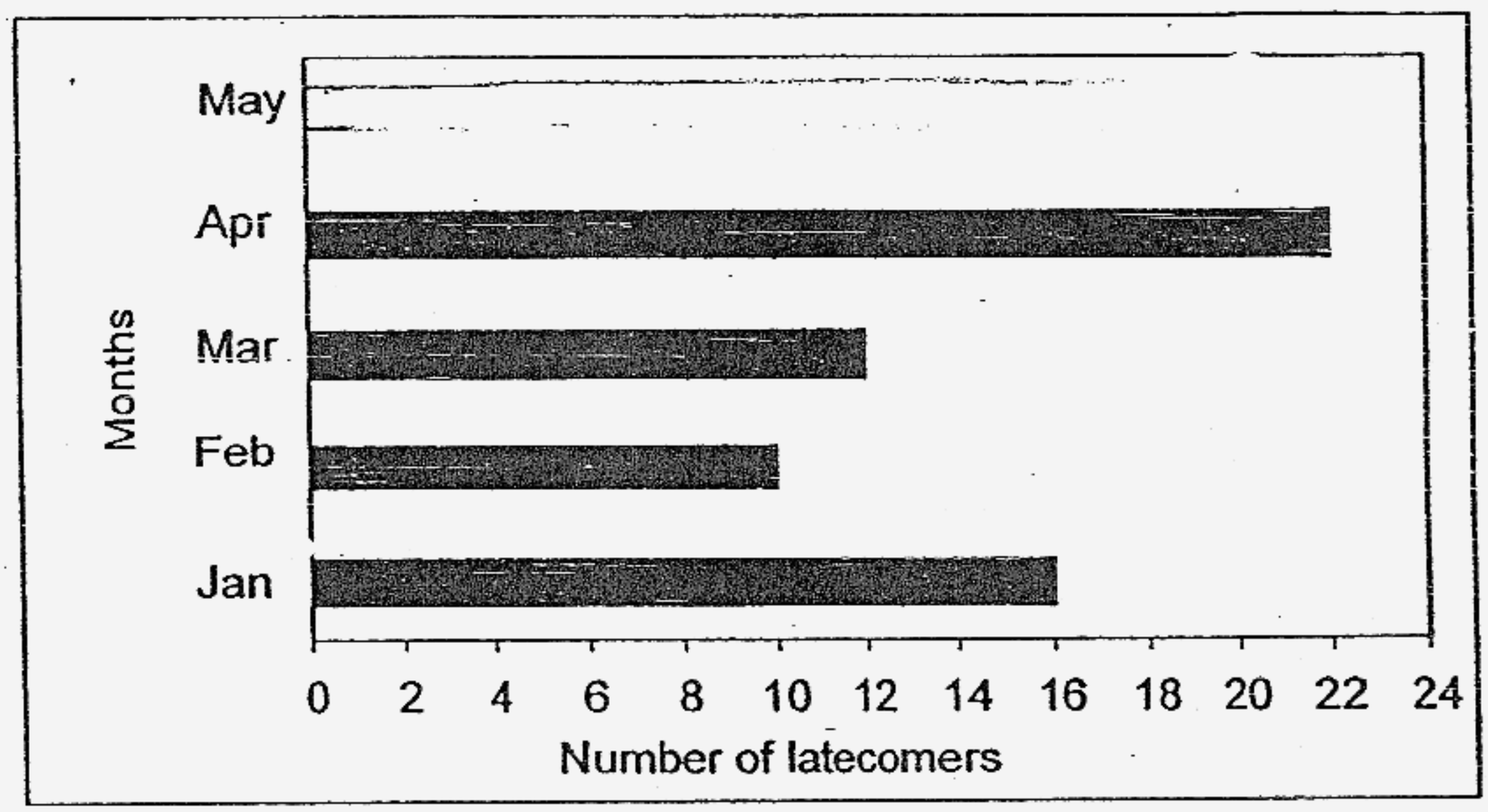
Ans : _____ [3]

38. The table below shows the number of pupils who were late for school from January to May this year. There were 80 latecomers during this period of time.

Month	Jan	Feb	Mar	April	May
Number of latecomers	16	10	12	22	?

(a) How many pupils were late for school in May? [1]

(b) Plot the missing data in the bar graph drawn below. [1]

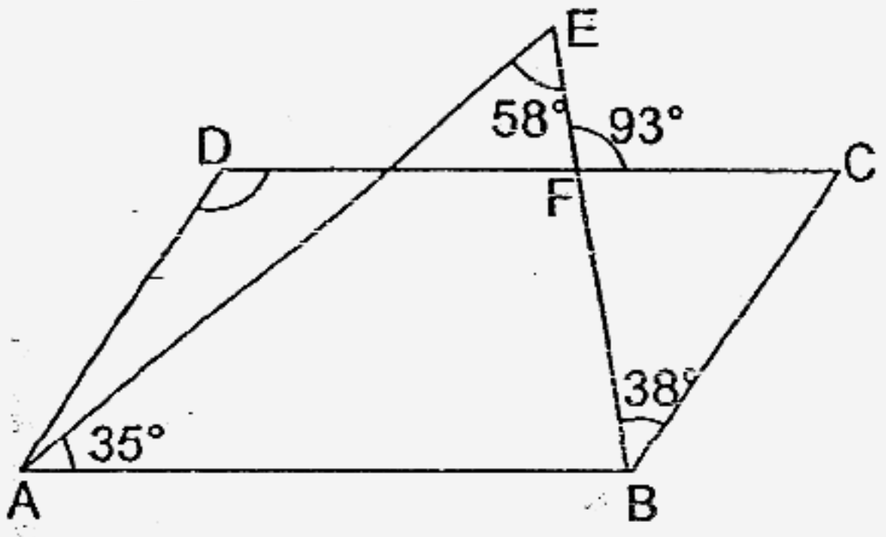


(c) What percentage of the number of latecomers came late in the month of January?

Ans : (a) _____ [1]

(c) _____ [1]

39. The figure is not drawn to scale. ABCD is a parallelogram. Find ∠ADC.



Ans : _____ [3]

40. There were 30 more members in the IT Club than in the Art Club. 15 members left the Art Club for the IT Club. It was then found that the number of members in the IT Club was 5 times as many as the number of members in the Art Club. How many members were there in both clubs altogether?

Ans : _____ [3]

41. In the following figures, the area of the biggest equilateral triangle is 64 cm^2 as shown in Figure 1. A new triangle is formed by connecting the midpoints of the sides of the previous triangle. If the pattern continues, find the area of the smallest triangle in Figure 4.

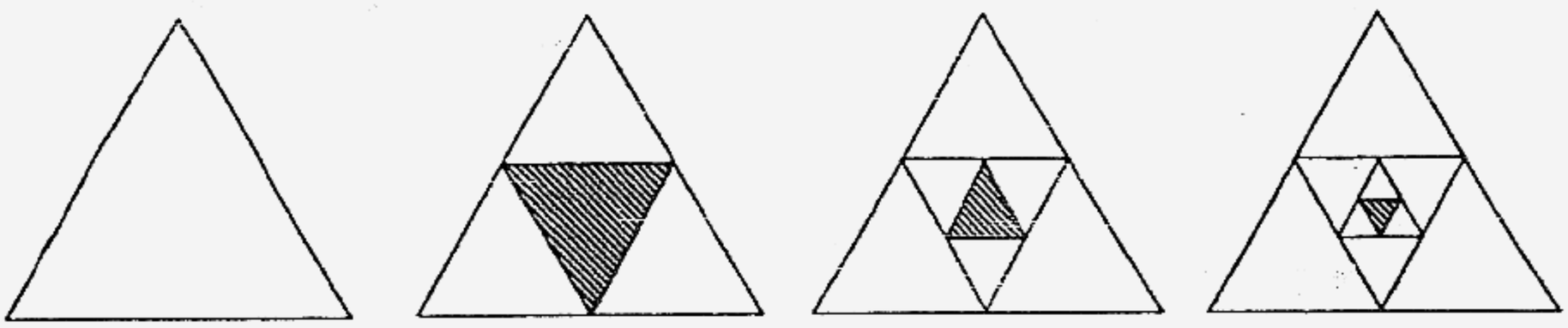


Figure 1 Figure 2 Figure 3 Figure 4

Ans : _____ [3]

42. At first, the total number of sheep in Farm A and Farm B was 980. After $\frac{3}{5}$ of the sheep in Farm A and 200 of the sheep in Farm B are sold, the ratio of the number of sheep in Farm A to Farm B becomes 1 : 4.

(a) Find the number of sheep in Farm B at first.

(b) Find the total number of sheep left in Farm A and Farm B.

Ans: (a) _____ [2]

(b) _____ [2]

43. Four children, Angela, Belinda, Cristobel and Dorothy shared $240. Angela received $\frac{1}{2}$ of the total amount of money received by Belinda, Cristobel and Dorothy. Belinda received $\frac{2}{3}$ of the total amount of money received by Cristobel and Dorothy. Cristobel received 3 times as much money as Dorothy.

(a) How much money did Dorothy receive?

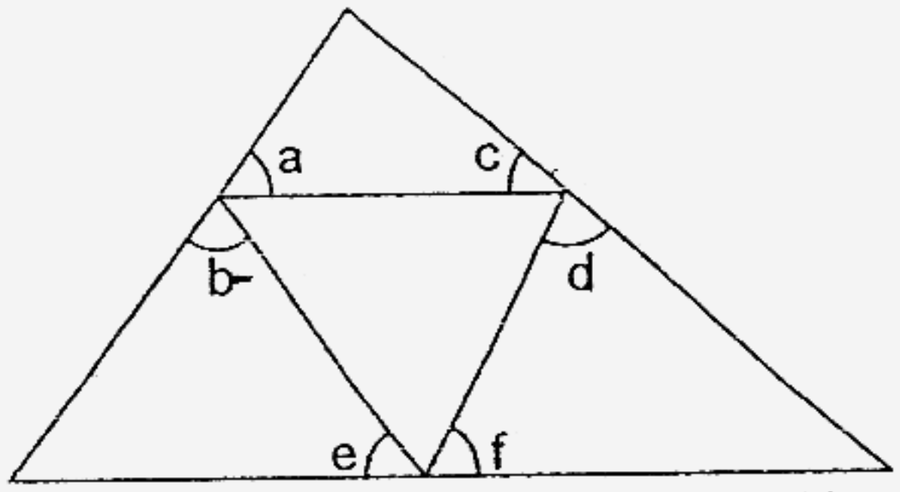
(b) What fraction of Angela's money is Dorothy's money if Angela gave $20 to Dorothy?

Ans: (a) _____ [2]

(b) _____ [2]

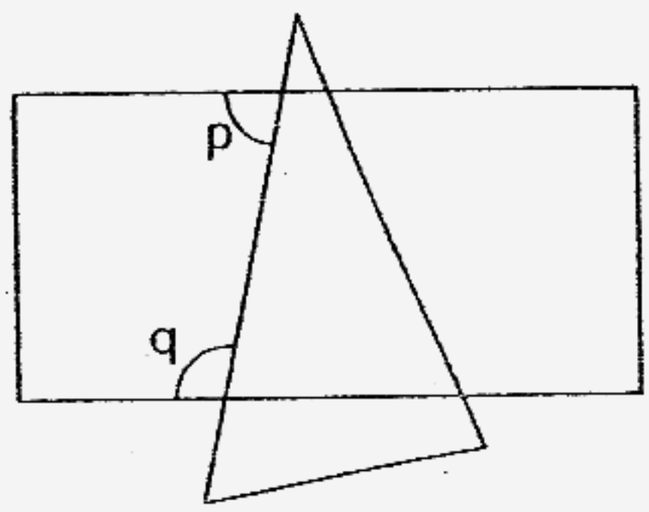
44. Study the diagram below.

(a) What is the sum of ∠a, ∠b, ∠c, ∠d, ∠e and ∠f?



The figure below shows a rectangle and a triangle.

(b) What is the sum of ∠p + ∠q?



Ans: (a) _____ [2]

(b) _____ [2]

45. Terrence earns $350 less than Leslie every month. They each spend $800 every month and save the rest of their money.

(a) How long does it take for Terrence to save $2100 and Leslie to save $4550?

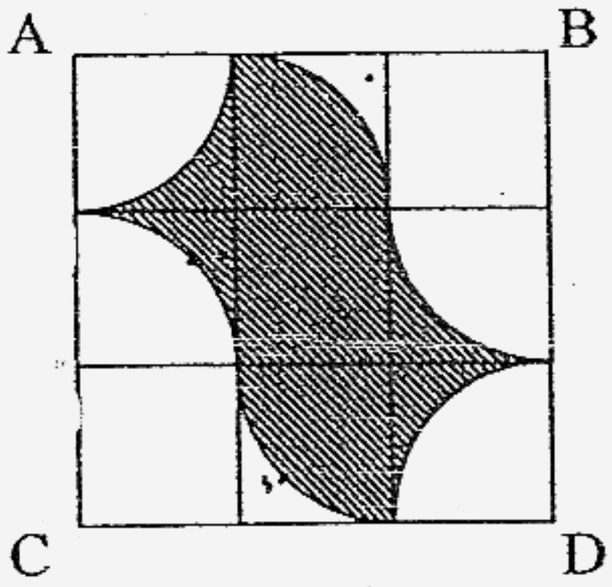
(b) What is Terrence's monthly salary?

Ans: (a) _____ ____ [2]

(b) _____ ____ [3]

46. In the figure, ABCD is a square with a perimeter of 84 cm. It is made up of identical squares and quarter-circles. (Take $\pi = \frac{22}{7}$)

(a) Find the perimeter of the shaded region.
(b) Find the area of the shaded region.



Ans: (a) _____[2]

(b) _____[3]

47. At first, Bob had only $5-notes and Chris had only $2-notes. The number of notes Bob had is 80% of Chris' notes. When Bob gives Chris $100, the number of notes Chris has now is 70% more than Bob.

(a) How many notes did Bob have at first?

(b) How much money does Chris have at the end?

Ans: (a) _____ [3]

(b) _____ [2]

62

48. A lorry, a van and a car set off at the same time travelling at a constant speed of 60 km/h, 80 km/h and 120 km/h respectively. The lorry and the van were travelling from Town G to Town H while the car was travelling from Town H to Town G. The car passed the lorry 2 minutes after passing the van.

(a) Find the ratio of the distances travelled by the lorry to the van to the car at the moment when the car passed the van.

(b) Find the distance between Town G and H.

Ans: (a) _____ [2]

(b) _____ [3]

End - of - Paper

Setters : Mrs Priscilla Heng
Mrs Norah Idil

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

16. $\frac{1}{3}$
17. 2.9
18. 60
19. 20cm
20. 37.4
21. 38°
22. 375
23. A
24 450
25. (5 + K)

26. 12

27. $72cm^2$

28. $\frac{4}{9}$

29. ?

30. $200

31. 62°

32. $0.40

33. 34

34. $3584cm^3$

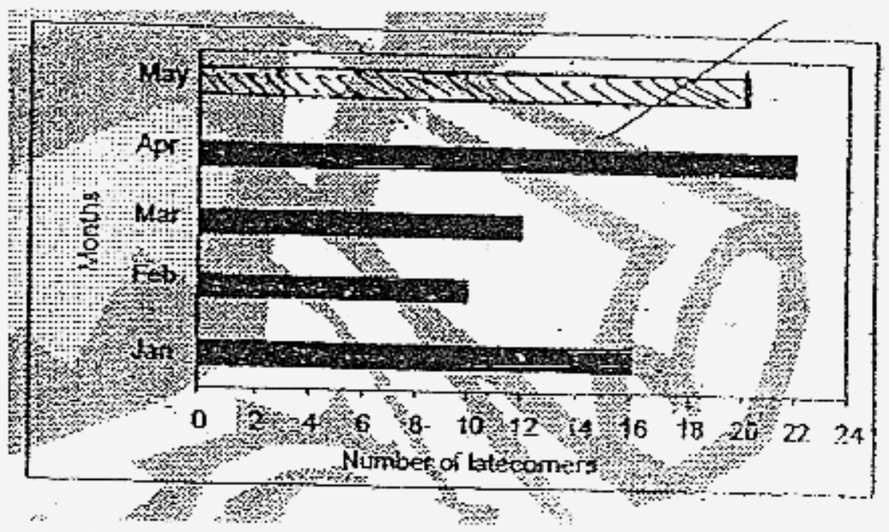
35. 80°

36. $6m

37. $27cm^2$

38a. 20

38b.



38c. 20%

39. 125°

40. 90

41. $1cm^2$

42a. 680

42b. 600

43 a. $24

43 b. $\frac{11}{15}$

44a. 360°

44b. 180°

45 a. 7

45 b. $1100

46a. 66cm

46b. $168cm^2$

47 a. 120

47 b. $400

48a. 3 : 4 : 6

48b. 60km