NANYANG PRIMARY SCHOOL
FIRST SEMESTRAL EXAMINATION 2005
PRIMARY 5
MATHEMATICS

TIME: 2 HOUR 15 MINUTES

Booklet A	/ 20
Booklet B	/ 30
	/ 50

Total:	/100

Name: _____ (   )

Class: Primary 5 (   )

Parent's Signature: _____

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

FOLLOW ALL INSTRUCTIONS CAREFULLY.

SHOW ALL WORKINGS IN THE SPACES PROVIDED.

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 oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

1   A car factory can produce 480 cars in one month. How many cars can the factory produce in two years?

   (1)   960

   (2)   5 760

   (3)   9 600

   (4)   11 520

2   In $\boxed{} - 3\frac{2}{7} = 2\frac{8}{21}$, what is the missing fraction in the box?

   (1) $5\frac{5}{14}$

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

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

   (4) $5\frac{16}{21}$

3   Find the value of $\frac{3}{8} \times 1\,000$

   (1)   125

   (2)   375

   (3)   750

   (4)   1 375

1

4   The side of a square is $\frac{4}{9}$ m. Find its area.
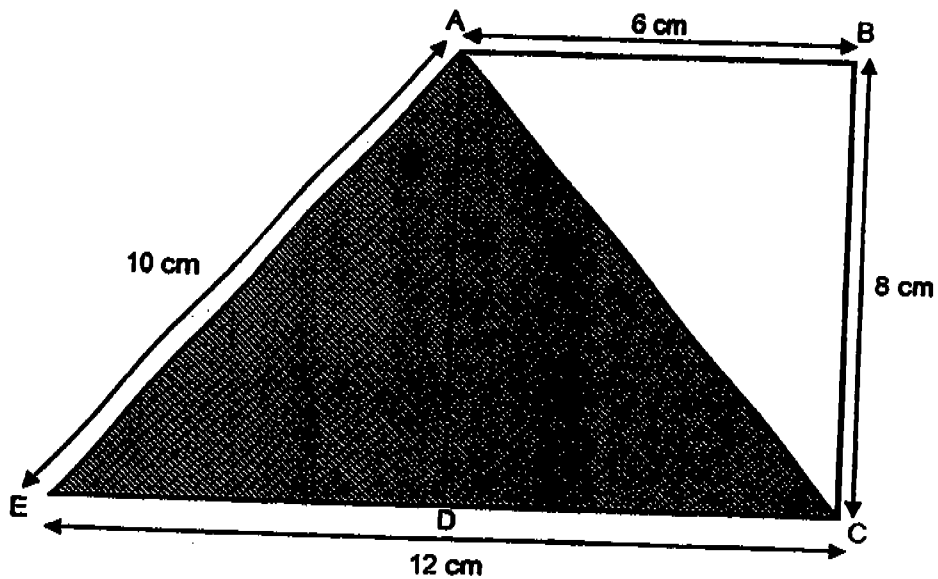
    (1) $\frac{8}{9}$ m²

    (2) $\frac{8}{81}$ m²

    (3) $\frac{16}{81}$ m²

    (4) $1\frac{7}{9}$ m²

5   The figure shown below is made up of rectangle ABCD and triangle ADE. Find the shaded area.

    (1)   24 cm²

    (2)   48 cm²

    (3)   60 cm²

    (4)   72 cm²

2

6   What is the remainder when 226 is divided by 16?

     (1)   14

     (2)   2

     (3)   0

     (4)   4

7   In a cinema, there are 96 adults and 48 children. Find the ratio of the number of children to the total number of people in the cinema.

     (1)   1 : 2

     (2)   1 : 3

     (3)   2 : 3

     (4)   3 : 1

8   Alex had $\frac{7}{10}$ m of ribbon. He cut it into 5 equal pieces. What was the length of each piece of ribbon?
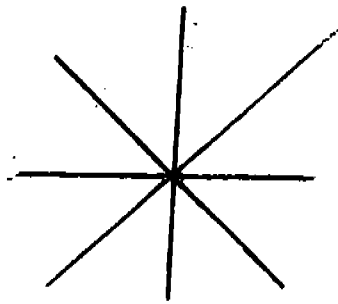
     (1) $\frac{7}{50}$ m

     (2) $3\frac{1}{2}$ m
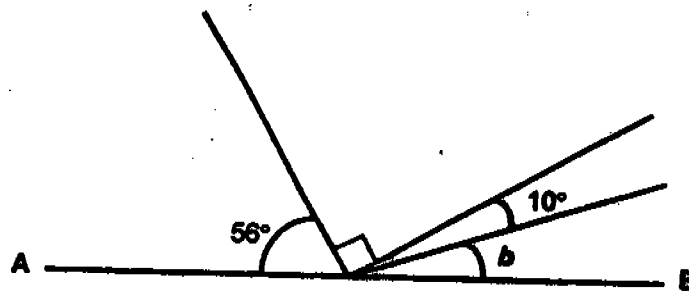
     (3) $5\frac{7}{10}$ m

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

3

9 Raju was facing North. In which direction would he be facing if he turned 45° in an anti-clockwise direction?

    (1)   North-east

    (2)   North-west

    (3)   South-east

    (4)   South-west

10 The diagram below is not drawn to scale. AB is a straight line. Find $\angle b$.

    (1)   24°

    (2)   34°

    (3)   46°

    (4)   56°

11 Find the value of $(105 - 26) \times 3 + 6$

    (1)   33

    (2)   237

    (3)   243

    (4)   711

4

12   A video camera costs four times as much as a digital camera. It costs
     $1 200 more than the digital camera. What is the total cost of the two
     items?

     (1) $400

     (2) $800

     (3) $1 600

     (4) $2 000

13   Peter is 1 m 38 cm tall. He is 6 cm shorter than his sister. What is the
     ratio of Peter's height to that of his sister?

     (1)   22 : 23

     (2)   23 : 22

     (3)   23 : 24

     (4)   24 : 23

14   The mass of three girls, Nico, Amelia and Kelly, are in the ratio 5 : 7 : 3.
     If Amelia is 35 kg, find the combined mass of Nico and Kelly.

     (1)   40 kg

     (2)   50 kg

     (3)   70 kg

     (4)   75 kg

5

15   There are 36 coloured balls in a box. $\frac{2}{9}$ of them are blue, $\frac{2}{3}$ are green and the rest are red. How many red balls are there?

(1)   24

(2)   20

(3)   8

(4)   4

6

Name: _____(   )   Class: Pr 5 (   )

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<u>**Booklet B**</u>

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   The digit 8 in 891 235 is in the _____ place.

Ans: _____

17   How many hundreds are there in 4 720 000?

Ans: _____

18   Subtract 78 550 from 100 000. Round off your answer to the nearest hundred.

Ans: _____

7

3 2

19 Shankar needs 2 m of cloth to make a dress. How many metres of cloth does he need to make 5 dozen similar dresses?

Ans: _____ m

20 What is the missing number in the box?

$$72 \div \boxed{} + 6 = 30$$

Ans: _____

21 What is the missing number in the box?

$$\frac{11}{15} - \frac{1}{3} = \frac{2}{\boxed{}}$$

Ans: _____

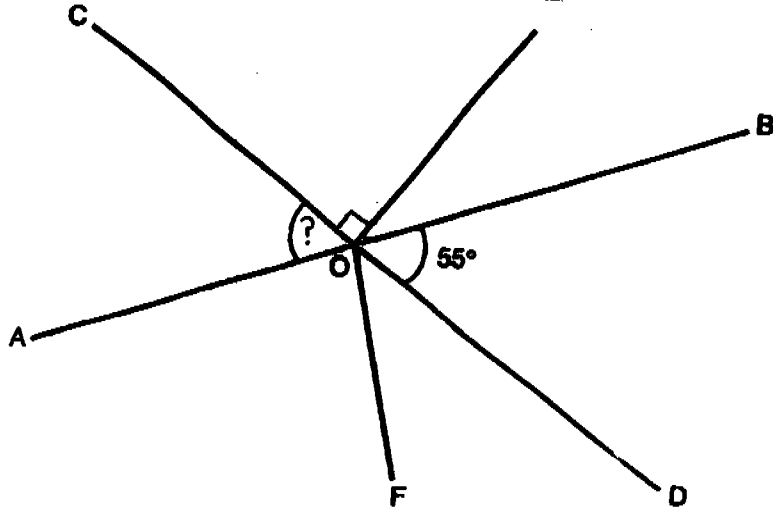22 Express 750 *ml* as a fraction of 4 *l*. Give your answer in its simplest form.

Ans: _____

8

33

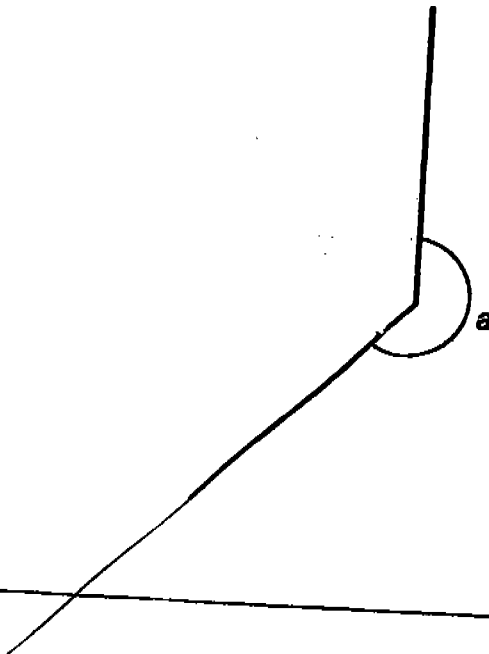23   What is the missing number in the box?

$$15 - 5\frac{3}{4} = \boxed{}$$

Ans: _____

24   The figure below is not drawn to scale. AB and CD are straight lines.
      Find ∠AOC.

Ans: _____ °

25   In the figure below, use a protractor to measure ∠a.

Ans: _____ °

9

3ψ

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)

26 The total sales for Britney Spears' concert for the first day was $386 400. If each ticket was sold at $100 and the number of people attending the concert on the second day was twice that of the first day, how many people attended her concert for the two days?

Ans: _____

27 Mr Soon can type 112 words in one minute. How many words can he type if he types at the same rate from 1 p.m. to 2.50 p.m.?

Ans: _____

10

35

28. Jean bought 1 568 mangoes. She realised that 43 of them were rotten. She then packed the good mangoes into crates of 25 mangoes and sold them at $55 per crate. How much money did Jean collect from the sale of the mangoes?

Ans: $ _____

29. Thrice of a number is greater than half of that number by 30. Find the number.

Ans: _____

11

30   What is the missing number in the box?

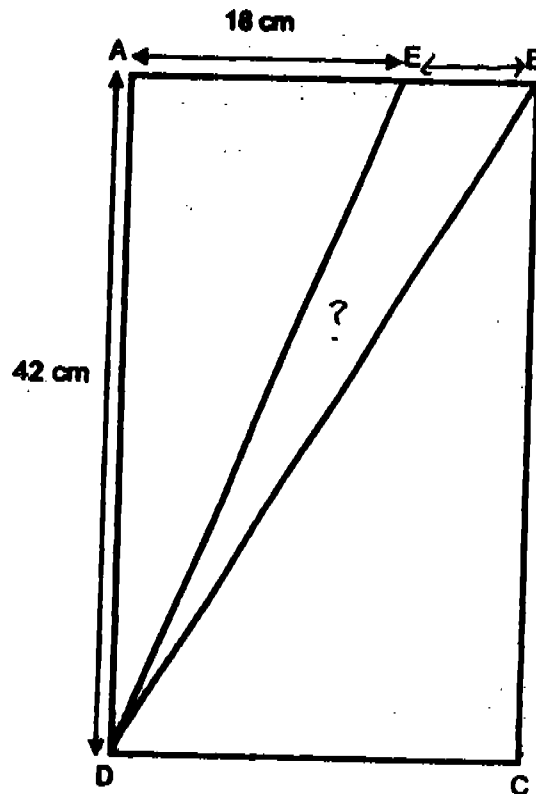$$\frac{12}{15} \times \frac{5}{6} = \frac{1}{4} + \frac{\square}{2} - \frac{1}{12}$$

Ans: _____

31   Mrs Gan bought a packet of sugar. She used $\frac{3}{4}$ of it to make cookies. If she had 75 g of sugar left, what was the mass of the packet of sugar that she bought?

Ans: _____ g

37

32 The area of rectangle ABCD is 1 050 cm². Find the area of triangle EDB.

16 cm

A ←————————→ E ← →B

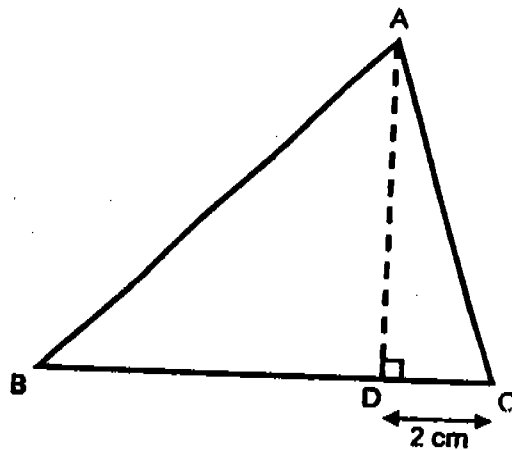42 cm

?

D   C

Ans: _____ cm²

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33 The ratio of the cost of an air ticket to Hong Kong to the cost of an air ticket to Japan is 1 : 3. The total cost of an air ticket to Hong Kong and an air ticket to Japan is $2 200. Find the cost of an air ticket to Hong Kong.

Ans: $ _____

38

34 A wire was cut into 3 pieces in the ratio 2 : 7 : 9. If the shortest piece was 14 cm, what was the length of the longest piece?

Ans: _____ cm

35 In the figure shown below, AD is three times the length of CD. BC is 4 times the length of DC. Find the area of triangle ABC.

Ans: _____ cm^2

14

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.

(50 marks)

36   Mr Lum bought 8 crates of peaches. Each crate had 30 peaches. He sold 75 peaches for $2 each and the rest at $1.50 each. How much money did he collect from the sale of the peaches?

Ans: _____ [3]

37   In two weeks, Reuben travelled a total distance of 1 140 km from his house to his office and back home again. He worked from Monday to Friday. How far was the office from his house?

Ans: _____ [3]

15

38   Michael was given one large pizza. He ate $\frac{1}{3}$ of it and gave $\frac{2}{5}$ of the remainder equally to his four friends. What fraction of the pizza did each friend receive?

Ans: _____ [3]

39   There are 64 boys in the Boys' Brigade. The ratio of the number of lower primary boys to the number of upper primary boys is 5 : 11. How many more lower primary boys must the Boys' Brigade recruit so that there are equal number of boys from the upper primary and the lower primary?
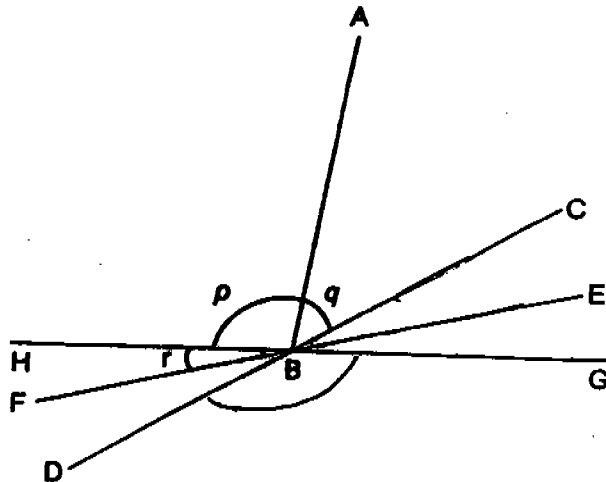
Ans: _____ [3]

16

4l

40 In a class of 42 pupils, 20 are girls. The ratio of the number of girls who are swimmers to the number of boys who are non-swimmers is 3 : 5. If there are 10 boys who are non-swimmers, express the number of girls who are swimmers as a fraction of the total number of swimmers in the class.

Ans: _____ [3]

41 The figure below is not drawn to scale. AB, CD, EF and GH are straight lines. $\angle p$ is twice as big as $\angle q$. $\angle DBG = 150°$. $\angle CBE = 17°$. Find the sum of $\angle p$ and $\angle r$.
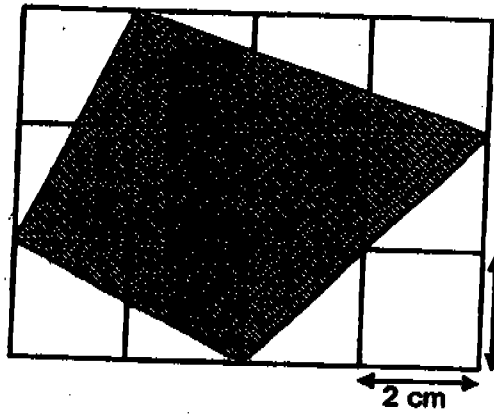

Ans: _____ [3]

17

42   Lena raises some goats and hens in her farm. These animals have 28 heads and 92 legs altogether. How many goats and hens does she have?
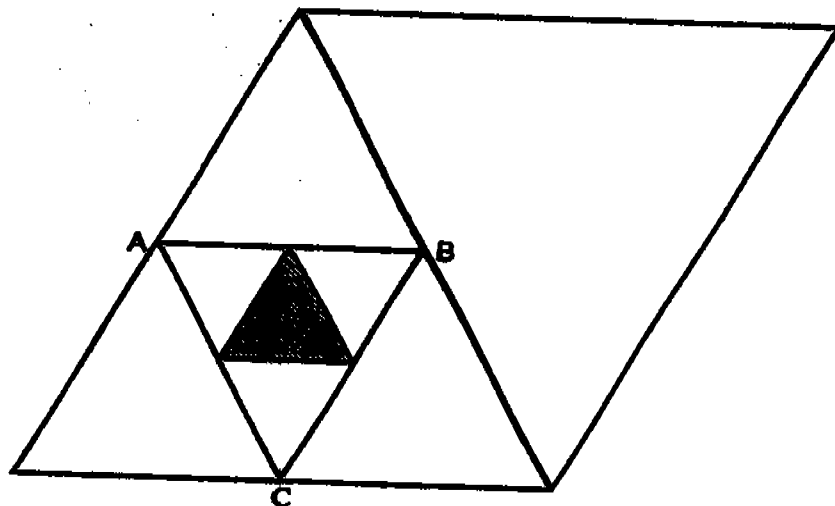
Ans: _____ goats [2]

_____ hens [2]

43

43 Find the area of the shaded figure as shown below.

2 cm

Ans: _____ [4]

44   The figure below is made up of equilateral triangles of different sizes. If the area of the shaded triangle is 6 cm²,

(a) . What is the area of triangle ABC?

(b)   What is the area of the whole figure?
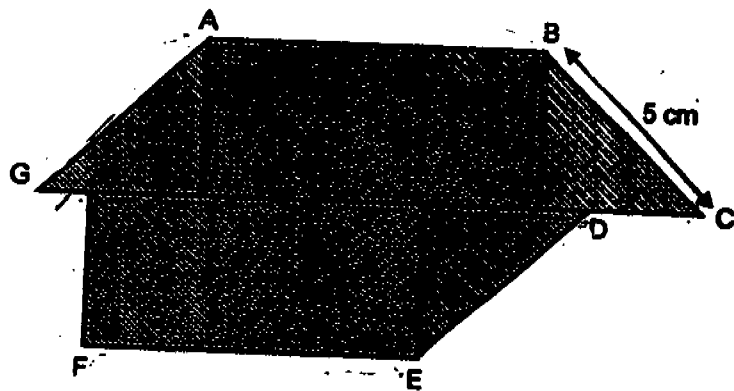

Ans: (a) _____ [2]

(b) _____ [2]

20

45

45 There were 1 230 adults in a theatre. $\frac{2}{5}$ of them were men. Some women walked out of the theatre and the number of women who stayed in the theatre was $\frac{4}{7}$ of the remaining people. How many women walked out of the theatre?

Ans: _____ [5]

46

46   The figure shown below is made up of 2 identical rectangles and 3 identical triangles. BC = 5 cm. The breadth of the rectangle is 3 cm. The perimeter of the rectangle is 22 cm. The area of each triangle is $\frac{1}{4}$ the area of the rectangle.

(a) Find the length of AB.

(b) Find the perimeter of the shaded figure.

Ans: (a) _____ [2]

(b) _____ [3]

22

47   Shawn bought some erasers. $\frac{2}{3}$ of the erasers are red and cost $0.35 each. $\frac{6}{7}$ of the remainder are white and cost $0.25 each. The rest are blue erasers which cost $0.50 each. He sold the white erasers for $0.30 each and received $10.80.

(a) How many white erasers were there?

(b) How much did he pay for all the erasers?

Ans: (a) _____ [1]

(b) _____ [4]

23

48 Aminah had $175 more than Bala. After she gave $\frac{1}{5}$ of her money to Bala, Bala had $25 more than her. How much money do they have altogether?

Ans: _____ [5]

END OF PAPER

Setters: Mrs Nancy Lum
       Ms Yasmeen Mohamad

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Nanyang Primary School

Primary 5 Maths SA1 Exam (2005)

███████████████

Answer Sheets

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

16. Hundred thousands
17. 47200 hundreds
18. 21500
19. 120
20. 3

21. 5

22. $\dfrac{3}{16}$

23. $9\dfrac{1}{4}$
24. 55
25. 226°
26. 11592 people
27. 12320 words
28. $3355
29. 12
30. 1
31. 300
32. 147

33. 550
34. 63
35. 24
36. $397.50
37. 57km

38. $\dfrac{1}{15}$ of the pizza

39. 24

40. $\dfrac{1}{3}$
41. 113°
42. 18 goats,   10 hens
43. 26cm²
44. a) 24cm²   b) 192cm²
45. 82 women
46. a) 8cm   b) 38cm
47. a) 36 white erasers   b) $41.40
48. $825