SA1

AI TONG SCHOOL

2004
SEMESTRAL ASSESSMENT 1
PRIMARY 5

MATHEMATICS

DURATION: 2 hr 15 mins

DATE: 14 MAY 2004

INSTRUCTIONS

Do not open the booklet until you are told to do so.
Follow all instructions.
Answer all questions

Booklet A
Section A (25 Marks)

Questions 1 to 5 carry 1 mark each.
Questions 6 to 15 carry 2 marks each.
For each question, 4 options are given. Choose the correct answer (1, 2, 3 or 4) and shade the correct oval on the OAS.

1. In the number 856 347, the digit 6 is in the _____ place.

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

2. Express 75 ml as a fraction of 2 litres.

(1) $\frac{2}{75}$
(2) $\frac{3}{80}$
(3) $\frac{3}{40}$
(4) $\frac{3}{4}$

3. How many fifths make $5\frac{4}{5}$?

(1) 4
(2) 9
(3) 20
(4) 29

4. Find the value of $3 \times 4 + 4 - 2 \div 2$

(1) 7
(2) 13
(3) 15
(4) 27

5. Find the ratio of the perimeter of a square of side 6 cm to that of a rectangle measuring 14 cm by 10 cm.

(1) 1 : 2
(2) 3 : 4
(3) 6 : 35
(4) 9 : 35

6. The area of a rectangle is 240 cm^2. What is its perimeter if its breadth is 15 cm?

(1) 30 cm
(2) 32 cm
(3) 60 cm
(4) 62 cm

7. At a birthday party, there are 3 times as many boys as girls. If there are 326 more boys than girls, how many children are there altogether?

(1) 163
(2) 489
(3) 652
(4) 978

8. If 4 identical pencils and 6 identical books cost $12, how much will 6 such pencils and 9 such books cost?

(1) $12
(2) $18
(3) $120
(4) $150

9. $45 \times 51 = 51 \times 21 + 51 \times \square$

The missing number in the box is _____.

(1) 23
(2) 24
(3) 30
(4) 34

10. The product of 3 numbers is 486. Two of the numbers are 27 and 3. What is the third number?

(1) 6
(2) 81
(3) 162
(4) 243

11. $\frac{2}{7}$ of an International school' s enrolment are boys. If there are 165 girls, how many boys are there?

(1) 33
(2) 66
(3) 99
(4) 231

12. $\frac{1}{3}$ of Ben' s money is $48. $\frac{1}{2}$ of his sister' s money is $10. $\frac{1}{4}$ of their total amount would be

(1) $21
(2) $41
(3) $68
(4) $164

13. The sides of a triangle are in the ratio of 5 : 6 : 7. If the longest side is 56 cm, find the perimeter of the triangle.

(1) 24 cm
(2) 40 cm
(3) 88 cm
(4) 144 cm

14. Mrs. Lee walked 5 km in 2 hours. If she covered 3 km at the same rate, how long did she take?

(1) 24 min
(2) 72 min
(3) 120 min
(4) 180 min

15. Liling has \$225. She saves $\frac{2}{5}$ of it and gives the rest to her parents and brother in the ratio of 3 : 2. How much do her parents receive?

(1) \$27
(2) \$81
(3) \$90
(4) \$135

Name: _____ ( )

Class: Primary 5 _____

Booklet B
Section B (20 Marks)
Each question from 16 to 35 carries 1 mark. The figures are not drawn to scale. Write your answer in the space provided.

16. Find the value of 139 x 18

Answer: _____

17. What is the value of the digit 7 in the numeral 8 376 249?

Answer: _____

18. Multiply 421 by 27 and round off the answer to the nearest thousand

Answer: _____

19. 39 x 13 = 3 x 13 + _____

Answer: _____

4

20. Denny had 1034 stickers. He gave 42 stickers to each of his friends and had 320 stickers left. How many friends did he have?

Answer. _____ friends

21. Mr. Tay contributed $5 and every pupil in his class contributed 20 cents to a donation. The total amount collected was $13.40. How many pupils were there in Mr. Tay's class?

Answer: _____ pupils

22. The sum of $3\frac{2}{5}$ and the product of $\frac{2}{3}$ and $\frac{3}{4}$ is _____

Answer: _____

23. After reading $\frac{3}{5}$ of a book. John still had 250 pages left to read. How many pages had ~~she~~ he read?

Answer: _____ pages

4

24. Kelly earns $3 500 per month. She saves $500 and spends the rest. What fraction of her money does she spend? .

Answer: _____

25. Find the value of $\frac{1}{4} + \frac{1}{2} \times \frac{4}{5}$

Answer: _____

26. David is $1\frac{1}{2}$ times as tall as his brother. If their total height is 2 m 80 cm, what is his brother's height?

Answer: _____ m _____ cm

27. Mrs Lim eats $\frac{1}{4}$ of a cake. The remaining cake is divided equally among her six children. What fraction of the cake will each child get?

Answer: _____

28. The sides of a triangle are 5 cm, 9 cm and 16 cm. Find the ratio of the length of the longest side to the perimeter of the triangle.

Answer: _____

5

29. The ratio of Amy's weight to Betty's weight to Carol's weight is 4 : 3 : 2. If Betty's weight is 42 kg, what is the total weight of Amy and Carol?

Answer: _____ kg

30. Find the area of a triangle which base and height are 25 cm and 1 m respectively.

Answer: _____ m^2

31. A farmer fenced a square plot of land for $1080. If each metre of fencing cost $27, find its length.

Answer: _____ m

32. The ratio of the number of adults to the number of children at a concert is 3 : 7. How many more children are there if there are 240 people at the concert?

Answer: _____ children

4

33. The ratio of the number of males to that of females attending a workshop is 1 : 2. If $\frac{3}{5}$ of the males that attend the workshop are boys, find the ratio of the male adults to all the females at the workshop.

Answer: _____

34. The total cost of tiling the floor of a rectangular hall is $2700. Each square metre of tiling costs $30. If the length of the hall is 15 m, find its perimeter.

Answer: _____ m

35. There were 104 marbles altogether in 2 bags. When 12 marbles are moved from bag A to bag B and 7 marbles are moved from bag B to bag A, the number of marbles in each bag became the same. How many marbles were there in bag B originally?

Answer: _____ marbles

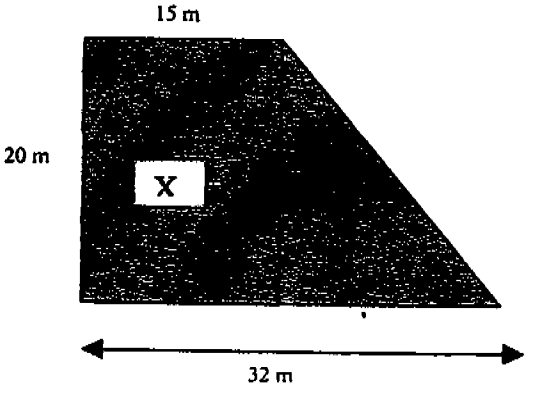
SECTION C: (55 marks)

For questions 36 to 50, show your working clearly in the space below 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. Yew Fa and Devi have $480 altogether. If Yew Fa has $140 more than Devi, how much money does Devi have?

Answer:_____ [2]

37. The figure below shows a piece of land. The area of Plot X is 38 m^2. What is the area of the shaded land?



Answer:_____ [2]

4

38. Jason has \$50. If he spends $\frac{1}{5}$ of it on 1 shirt and $\frac{3}{8}$ of it on a book, how much money did he spend altogether?

Answer: _____ [2]

39. Miss Lee bought 3 sandwiches and 4 boxes of chocolate. A sandwich cost \$2 while 1 box of chocolate cost three times as much. How much did she spend altogether?

Answer: _____ [3]

40. A concert hall had 480 seats. 120 tickets were sold to children at $4 each. 200 tickets were sold to adults at $8 each. The remaining tickets were sold at $5 each for senior citizens. How much was the total sale of the tickets?

Answer:_____ [3]

41. At a confectionary, there was an equal number of cakes and bread. At the end of the day, 22 cakes and 117 loaves of bread were sold. The ratio of cakes to bread became 7 : 2. How many loaves of bread were there at the beginning of the day?

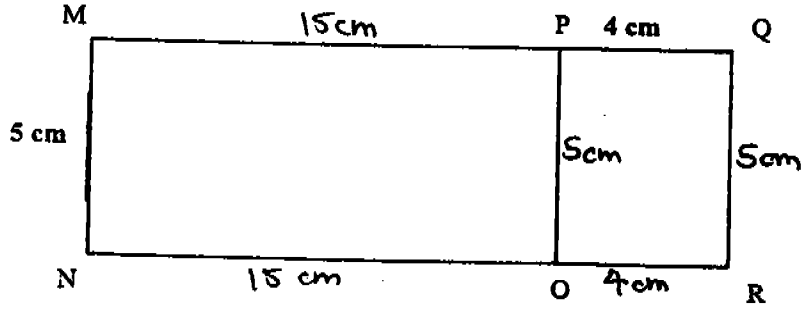
Answer:_____ [3]

6

42. The total cost of 9 files and 5 pens is $71. The total cost of 3 files and 3 pens is $33. Find the difference in cost between 1 file and 1 pen.

Answer:_____ [4]

43. In the figure below (not drawn to scale), given that MN = 5 cm, PQ = 4 cm, the perimeter of Rectangle MNRQ is 30 cm longer than the perimeter of Rectangle PORQ. What is the difference between the area of Rectangle MNOP and the area of Rectangle PORQ?



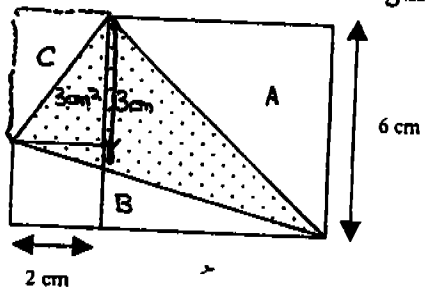
Answer:_____ [4]

8

44. Peter bought a bag of erasers. $\frac{1}{4}$ of them were blue. $\frac{1}{3}$ of them were red and $\frac{1}{2}$ of the remainder were yellow. If there were 20 yellow erasers, how many erasers did he buy?

Answer:_____ [4]

45. The figure shows two squares and a shaded triangle. The big square has a length of 6 cm while the small square has a length of 2 cm. Find the shaded area.



Answer:_____ [4]

46. Mr Seow had \$320. He gave $\frac{3}{8}$ of the money to his son, John, and shared the rest among his three daughters Alicia, Belinda and Christine in the ratio 2 : 1 : 7. How much more did Christine receive than John?

Answer: _____ [4]

4

47. Mrs Lee bought a bag with $\frac{2}{9}$ of her money and a pair of shoes which cost $60 more than the bag. She had $\frac{1}{3}$ of her money left.

a) How much did the shoe cost?
b) How much money did she have at first?

Answer: a) _____ [3]

b) _____ [2]

5

48. A compass cost $40 more than a mat and a bag cost twice as much as a compass. A scout found that the total cost of the three items was twice the cost of a pair of trekking shoes. If the pair of trekking shoes cost $150, find the cost of the compass.

Answer: _____ [5]

5

49. At a party, the ratio of the number of female guests to the number of male guests was 10 : 9. At 10pm, 27 of the male guests left and the new ratio for the number of female guests to the number of male guests was 5 : 3. How many guests were there at first?

Answer: _____ _____ [5]

5

50. The figures below are formed from identical small triangles.

1-storey pyramid

2-storey pyramid

3-storey pyramid

a) How many small triangles are there in a 4-storey pyramid?

b) How many small triangles are there in a 35-storey pyramid?

c) If there are 3481 triangles in a particular pyramid, how many storeys does it have?

Answer: a) _____ [1]

b) _____ [2]

c) _____ [2]

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--- CHECK YOUR WORK CAREFULLY ---

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8A1

1) 3

2) 2

3) 4

4) 3

5) 1

6) 4

7) 3

8) 2

9) 2

10) 1

11) 2

12) 2

13) 4

14) 2

15) 2

16) 2502

17) 70000

18) 11000

19) 468

20) 17

21) 42

22) 3 9/10

23) 375

24) 6/7

25) 13/20

26) 1m 12 cm

27) 1/8

28) 8 : 15

29) 84

30) 1/8 m^2

31) 10

32) 96

33) 1 : 5

34) 42 m

35) 47 marbles

36) $ 170

37) 432 m^2

38) $ 28.75

39) $ 30

40) $ 2880

41) 155

42) $ 3

43) 55 cm^2

44) 96

45) 18 cm^2

46) $ 20

47) a) $ 120

b) $ 270

48) $ 85

49) 171

50) a) 16

b) 1225

c) 59