

SAT

**TAO NAN SCHOOL
PRIMARY SIX MATHEMATICS MID – YEAR EXAMINATION – 2005**

NAME: _____ ()

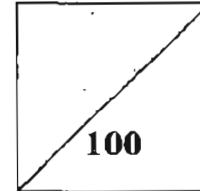
DATE: 11 MAY 2005

CLASS: PRIMARY 6 _____

TIME: 7.55 A.M. TO 10.10 A.M.

PARENT'S SIGNATURE: _____

MARKS:



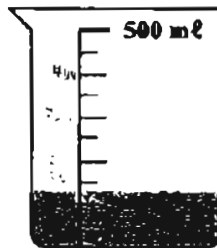
Section A (25 marks)

Questions 1 to 5 carry 1 mark each. Questions 6 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. 5 hundreds, 2 tens and 6 thousandths is _____.
- (1) 526.000
(2) 520.006
(3) 500.260
(4) 500.026

SA MA	
Highest	92
Lowest	56
86-92	6
80-85	11
71-79	19
60-70	3
56-59	1

2. What is the best estimate of the volume of water in the container below?



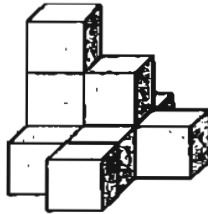
- (1) 100 ml
(2) 110 ml
(3) 130 ml
(4) 150 ml

3. I am a 4-sided figure with equal sides and 2 pairs of parallel lines. What am I?
- (1) Rhombus
 - (2) Rectangle
 - (3) Trapezium
 - (4) Parallelogram
4. The ratio of the number of men to the number of women to the number of children in the cinema is 6: 4: 5. Express the number of children as a fraction of the total number of people.
- (1) $\frac{1}{5}$
 - (2) $\frac{1}{2}$
 - (3) $\frac{1}{3}$
 - (4) $\frac{1}{4}$
5. $12\% \times 50 =$ _____
- (1) 6
 - (2) 12
 - (3) 38
 - (4) 60
6. $1\frac{1}{5} \times 5 = \frac{1}{5} + \frac{1}{5} + \frac{1}{5} + \square \times \frac{1}{5}$
- (1) 23
 - (2) 2
 - (3) 3
 - (4) 27

7. $B + C = 28$
 $B + K = 29$
 $C + C = 24$
What is the value of K ?

- (1) 11
- (2) 12
- (3) 13
- (4) 14

8. What is the number of cubes required to make the below solid?



- (1) 7
- (2) 8
- (3) 9
- (4) 10

9. The sum of 1.5 kg, 250g and 80g is _____.

- (1) 1.83 kg
- (2) 2.55 kg
- (3) 4.80 kg
- (4) 4.08 kg

10. Which of the following is the best estimated time, if the minute hand of the clock moves 225° clockwise?



- (1) 6.30 p.m.
(2) 6.35 p.m.
(3) 7.55 p.m.
(4) 8.00 p.m.
11. The average weight of 2 pupils was 48kg. One of the pupils lost some weight and the average weight of the 2 pupils became 44kg. How much weight did he lose?
- (1) 8
(2) 2
(3) 11
(4) 4
12. The ratio of the number of David's stamps to Emily's stamps is 3:1. David has 18 stamps more than Emily. How many stamps does David have?
- (1) 18
(2) 27
(3) 77
(4) 81
13. Adam gave 40% of his stickers to his sister and 30% of the remainder to his brother. What percentage of his stickers had he left?
- (1) 18%
(2) 22%
(3) 30%
(4) 42%

14. Which letter below is not a symmetric figure?

(1) A

(2) C

(3) E

(4) Z

15. Helen paid \$12 to enter an amusement park. She took some rides which cost \$1.20 and 50¢ each. Altogether she spent \$20 at the amusement park. How many rides did she take?

(1) 9

(2) 8

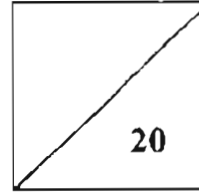
(3) 5

(4) 4

Name : _____ () Class : Pr 6 _____

SECTION B

Questions 16 to 35 carry 1 mark each. Write your answers in the spaces provided. Give your answers in the units stated.



16. Find the value of $56.24 \div 8$

Ans: _____

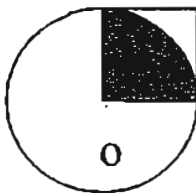
17. What is the value of $14 - (4 + 2) \div 3 \times 3$?

Ans: _____

18. $3\frac{2}{5} \ell =$ _____ ℓ _____ $m\ell$

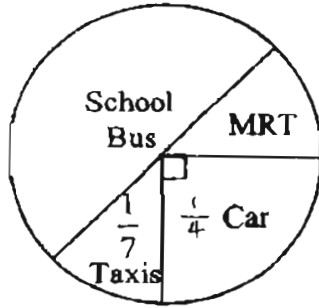
Ans: _____ ℓ _____ $m\ell$

19. The figure below is made up of a circle and a square. O is the centre of the circle and the area of the square is 25 cm^2 . What is the radius of the circle?



Ans: _____ cm

Use the pie chart given below to answer questions 20 and 21.
 The pie chart below shows the different modes of transport of pupils.



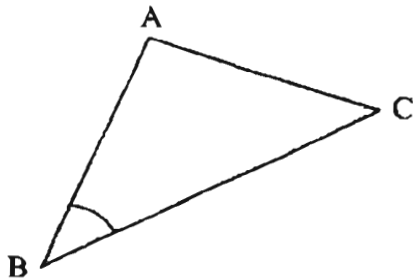
20. What fraction of the pupils comes to school by MRT?

Ans: _____

21. If 1190 pupils come to school by school bus, how many pupils come to school by taxi?

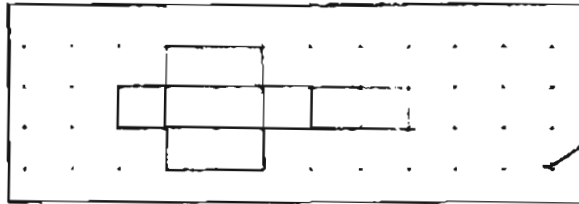
Ans: _____

22. Measure and write down the size of $\angle ABC$.



Ans: _____^o

23. Complete the net of the cuboid below.



24. Jane runs at an average speed of 250m/min. What was the distance covered by her in 30 seconds?

Ans: _____ m

25. Express 0.335 as a percentage.

Ans: _____ %

26. Below is a 4-digit number. The number is divisible by 3. What is the biggest possible digit?

2 4 5

Ans: _____

27. What is the highest common factor of 12 and 64?

Ans: _____

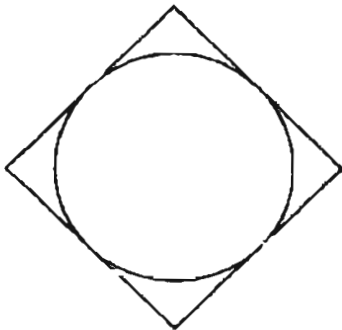
28. An empty cube is $\frac{2}{3}$ filled with water. If its breadth is 6 cm, find the volume of water in the container?

Ans: _____ cm³

29. Ida started on her project at 8.15 a.m. She stopped to take a half-hour break at noon for her lunch. She finished her project at 4 p.m. How long did she take to do her project?

Ans: _____ hrs

30. The figure shows a square and a circle. The perimeter of the square is 40cm. What is the circumference of the circle? (Given $\pi = 3.14$)



Ans: _____ cm

31. Serene paid \$42 inclusive of 5% GST for a bag. What was the price of the bag without GST?

Ans: \$ _____

32. Mr Tan bought 3 packets of apples. There were v apples in each packet. He gave the apples equally to his 6 boys. How many apples did each boy receive?

Ans: _____

33. Arrange the following numbers in ascending order.

$$\frac{4}{7}, \frac{2}{5}, \frac{8}{11}, \frac{1}{4}$$

Ans: _____

34. What is the missing number?

$$12 : 6 = \frac{\boxed{?}}{5}$$

Ans: _____

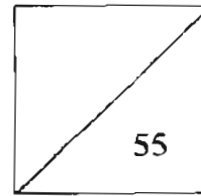
35. Find the perimeter of the semi-circle given below, given the radius 7 cm.

(Given $\pi = \frac{22}{7}$)



Ans: _____ cm

Name : _____ () Class : Pr 6 _____



SECTION C

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. A train left Station A at 7.30 a.m. for Station B. The distance between the two stations was 200 km. It reached Station B at 9.30 a.m. What was its average speed?

Ans: _____ (2m)

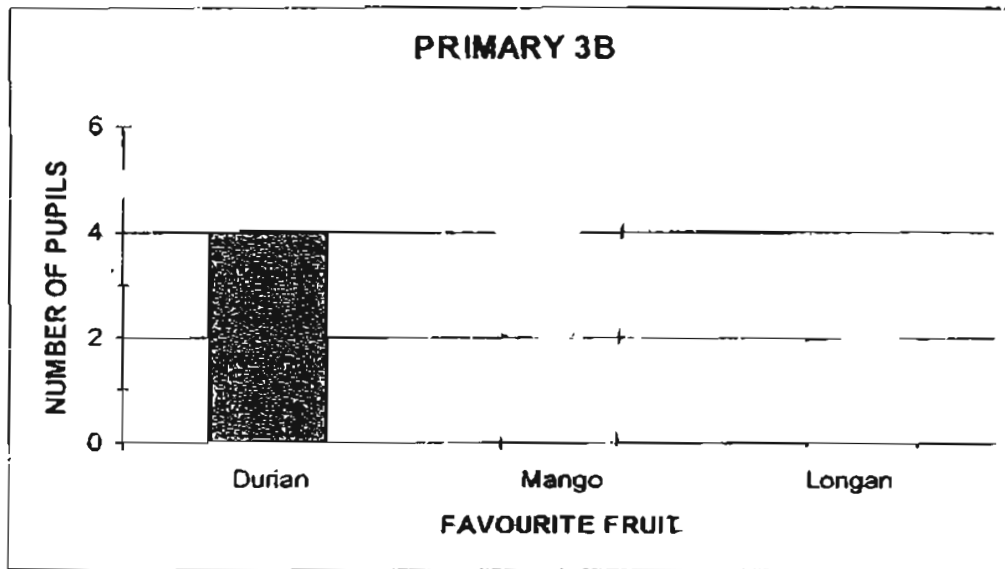
37. The number of beads in Container X is $\frac{3}{4}$ of the number of beads in Container Y. If $\frac{1}{2}$ of the beads are transferred from Container X to Container Y, what will be the ratio of the number of beads in Container X to the number of beads in Container Y?

Ans: _____ (2m)

38. The table below shows the favourite fruit of the pupils from Primary 3B.

Name of pupil	Fruit
Amy	Durian
Ben	Mango
Casey	Longan
Dan	Longan
Emily	Durian
Felicia	Mango
Gopal	Mango
Helen	Durian
Ian	Mango
John	Mango
Ken	Durian

(a) Use the data given above to construct a bar graph. (2m)



(b) How many more pupils prefer Mango to Longan?

Ans: (b) _____ (1m)

39. (a) Simplify the following algebraic expression.

$$7k + 6 - 2k + k^2 - 2$$

(b) Find the value of the above expression when $k = 3$

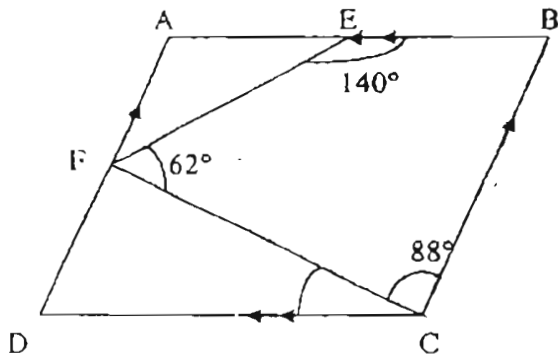
Ans: (a) _____ (1m)

(b) _____ (1m)

40. Tom is 11 years old and his father is 37 years old. In how many years' time will Tom's age be half that of his father's?

Ans: _____ (3m)

41. In the figure below, not drawn to scale, ABCD is a parallelogram. E is the mid-point of AB and F is the mid-point of AD. Find $\angle FCD$.



Ans: _____ (3m)

42. The average height of Peter, James and Luke is 1.26m. Peter is twice as tall as James. Luke is 0.12m shorter than Peter. Find the height of Luke.

Ans: _____ (4m)

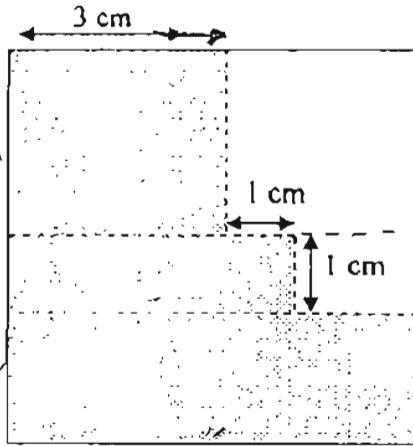
43. Michael ate $\frac{1}{3}$ of the cookies he had and gave $\frac{2}{5}$ of the remainder to his friends, Alvin and John. Alvin received 12 cookies. This is 8 more cookies than John. What fraction of the total number of cookies was given to John?

Ans: _____ (4m)

44. Gerald has 10% more pocket money than Fann. After Gerald spent 20% of his pocket money and Fann spent 30%. Fann had \$35 left. How much did Gerald spend?

Ans: _____ (4m)

45. The figure below is made up of a big square, a small square and 2 rectangles. The area of the big square is 36 cm^2 . What is the area of the unshaded part?

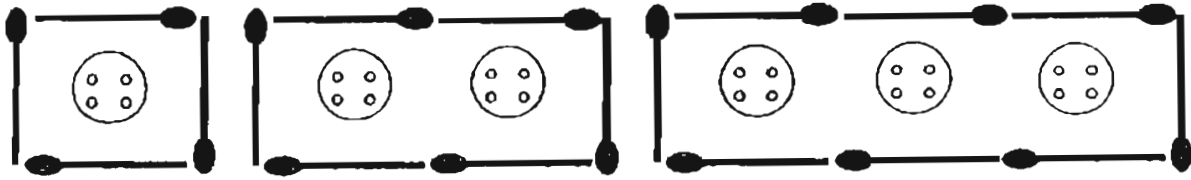


Ans: _____ (4m)

46. Shaune had 70 cards and Marcus had 28 cards. Shaune lost 20% of his cards. What percentage of his cards must he give to Marcus so that they would have the same number of cards?

Ans: _____ (4m)

47. Ming Hua is making patterns using buttons and matchsticks. He uses 4 matchsticks to surround a button, 6 matchsticks to surround 2 buttons and so on.



- (a) Complete the table below.

Number of buttons	Number of matchsticks
1	4
2	6
3	8
4	10
5	
10	22
101	

(3m)

- (b) How many buttons does Ming Hua need if he uses 502 matchsticks?

Ans: _____ (2m)

48. Rachel had blue and red balloons in the ratio 2:7. She gave away 15 red balloons and bought another 15 blue balloons. Then she found that she had an equal number of red and blue balloons.

- (a) How many blue balloons did she have at the beginning?
- (b) How many balloons did she have altogether now?

Ans: (a) _____ (3m)

(b) _____ (2m)

49. Ali and Betty travelled from Town X to Town Y at the same time. The distance between Town X and Town Y is 10 km. Ali rode on his scooter for half the distance and cycled for the rest of the way. Betty rode on her scooter for half her total time and cycled for the rest of the time. Both their riding speed was 15 km/h and their cycling speed was 10 km/h.
- (a) How long did Ali take to reach Town Y?
- (b) How long did Betty take to reach Town Y?

Ans: (a) _____ (2 m)

(b) _____ (3 m)

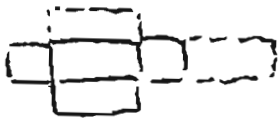
50. Jay has $\frac{1}{5}$ as many erasers as Ethan. After mother gave Ethan 12 more erasers and Jay received 5 more erasers from his friend, the ratio of the number of Ethan's erasers to the number of Jay's erasers became 4:1. How many erasers did Ethan have at first?

Ans: _____ (5m)

End of Paper

SAT

TAO NAN SCHOOL
 PRIMARY SIX
 MATHEMATICS
 MID YEAR EXAMINATION - 2005

- | | | |
|---|-------|--|
| 01. 2 | 11. 1 | |
| 02. 3 | 12. 2 | |
| 03. 1 | 13. 4 | |
| 04. 3 | 14. 4 | |
| 05. 1 | 15. 1 | |
| 06. 4 | | |
| 07. 3 | | |
| 08. 4 | | |
| 09. 1 | | 35) 36 |
| 10. 3 | | 36) 100 km/h |
| | | 37) 3 : 11 |
| 16) 7.03 | | 38) a) b) 3 |
| 17) 8 | | 39) a) $(5k + k^2 + 4)$ b) 28 |
| 18) 3 litres 400 ml | | 40) 15 years time |
| 19) 5 | | 41) 22^0 |
| 20) $\frac{3}{28}$ | | 42) 1.44 m |
| 21) 340 | | 43) $\frac{1}{15}$ |
| 22) 40 | | 44) \$ 11 |
| 23)  | | 45) 11 cm^2 |
| 24) 125 | | 46) 25% |
| 25) 33.5 | | 47) a) 12 |
| 26) 7 | | 204 b) 250 buttons |
| 27) 4 | | 48) a) 12 blue balloons |
| 28) 144 | | b) 54 balloons |
| 29) $7 \frac{1}{4}$ | | 49) a) $\frac{5}{6}$ hour b) $\frac{4}{5}$ hour |
| 30) 31.4 | | b) 40 erasers |
| 31) 40 | | |
| 32) $\frac{v}{2}$ | | |
| 33) $\frac{1}{4}, \frac{2}{5}, \frac{4}{7}, \frac{8}{11}$ | | |
| 34) 10 | | |

— THE END —
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