

NAME: _____ ()

CLASS: P6 _____

ANGLO-CHINESE SCHOOL (JUNIOR/PRIMARY)

PRIMARY PRELIMINARY EXAMINATION 2004

MATHEMATICS

SIA 2

BOOKLET A

Total Time for Booklet A & B : 2 h 15 min

Instructions To Candidates

Do not open this booklet until you are told to do so

Follow all instructions carefully

Answer all questions

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 (OAS).

- 1) The number of students in Joyous School is about 4000. Which of the following could be the actual number of students in Joyous School if it is rounded off to the nearest hundred?

- (1) 3899
- (2) 3995
- (3) 4054
- (4) 4101

- 2) When $y = 3$, find the value of $4y^2 + 2y - 4$.

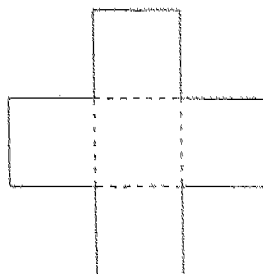
- (1) 26
- (2) 38
- (3) 68
- (4) 148

- 3) Express 2 kilometres 50 metres in kilometres.

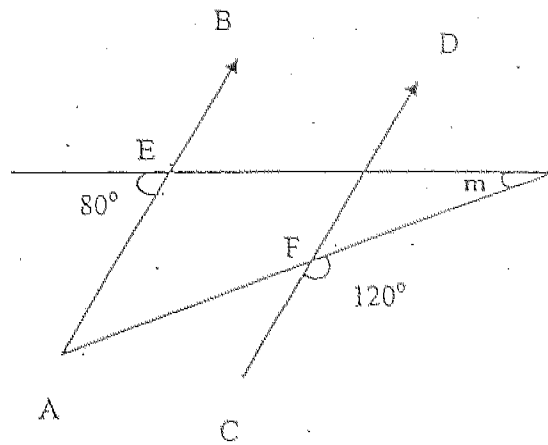
- (1) 25 km
- (2) 2.5 km
- (3) 2.05 km
- (4) 2.005 km

- 4) The figure is made up of 5 squares, each of side 2 cm. What is the perimeter of the figure?

- (1) 22 cm
- (2) 24 cm
- (3) 30 cm
- (4) 32 cm



- 5) In the figure, not drawn to scale, line $AEB \parallel$ line CFD . Find angle m .



- 1) 20°
2) 40°
3) 60°
4) 80°
- 6) Derek does his daily exercise by climbing up and down the stairs in his block. He always starts at the floor where his flat is. He goes up 4 floors, down 6 floors and then up 5 floors, to finish on the 8th floor. At which floor is Derek's flat?
- (1) 5th
(2) 11th
(3) 3rd
(4) 4th
- 7) On Sunday, the number of adults visiting a museum is 3 times as many as the number of children. The entrance ticket for an adult is \$5 and \$3 for a child. If the museum collected a total of \$360 on Sunday, how many adults visited the museum?
- (1) 20
(2) 45
(3) 60
(4) 90
- 8) Benny has the same number of ten-cent coins and fifty-cent coins. Their total value is \$36. How many coins does Benny have altogether?
- (1) 60
(2) 120
(3) 216

9) $(1 - \frac{1}{4}) \times (1 - \frac{1}{5}) \times (1 - \frac{1}{6}) \times (1 - \frac{1}{7}) = \square$

(1) $\frac{3}{7}$

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

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

(4) $\frac{6}{7}$

- 10) The ratio of Sam's money to Tim's money was 4 : 9. After Tim spent \$39, the ratio of Sam's money to Tim's money became 2 : 3. How much money did they have altogether at first?

(1) \$78

(2) \$84.50

(3) \$117

(4) \$169

- 11) If Leslie travelled at 60km/h in a car, he would take 1h 20 min to complete his journey. If he had cycled instead, he would take 5 hours.

With what average speed would Leslie be cycling?

1) 10 km/h

2) 12 km/h

3) 16 km/h

4) 45 km/h

- 12) The table shows the salary of 2 brothers.

Name of brother	Abel	Carl
Monthly salary	\$800	\$1400

Each of them gives \$200 to their mother and spends \$400 on their monthly expenses. The remaining money is put into their saving. How many percent more does Carl save than Abel?

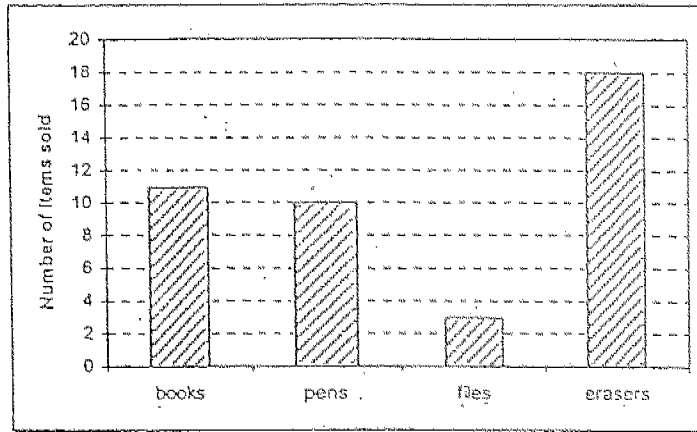
(1) 75%

(2) 150%

(3) 300%

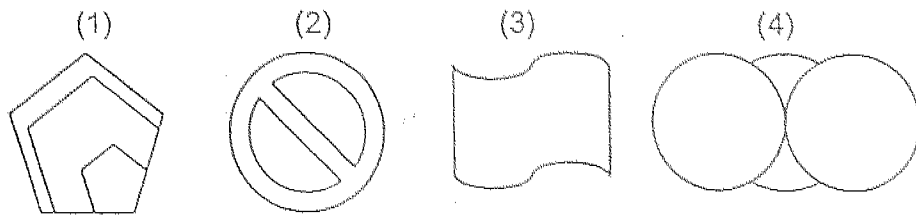
(4) 600%

- 13) The following bar graph shows the number of items sold in a day. Each book cost \$1, each pen cost 80 cents, each file cost \$2 and each eraser cost 50 cents. Which of the 4 items has the highest total sale price?

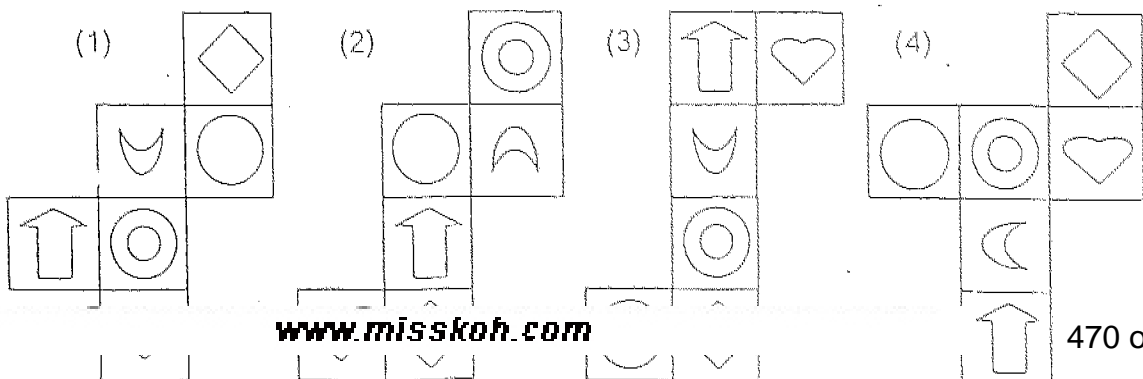
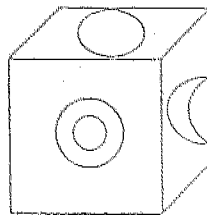


- 1) Books
- 2) Pens
- 3) Files
- 4) Erasers

- 14) Which of these figures has only 1 line of symmetry?



- 15) Study the cube below. Which of the following is the net of the cube?



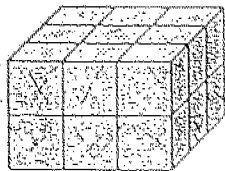
Section B (20 marks)

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

- 16) What is the product of 329 and 17?

Answer: _____

- 17) 18 cubes are used to form the solid. Then the solid is painted blue.
What fraction of the number of cubes used has two faces painted blue?
(Give your answer in its simplest form.)



Answer: _____

- 18) A container with five durians weighs 3.7kg. The average weight of the five durians is 0.7kg. What is the weight of the box?

Answer: _____ kg

- 19) Abel had 6 fewer badges than Ben. Carl had 8 more badges than Abel. They have 29 badges altogether. How many badges did Abel have?

Answer: _____

- 20) Evaluate $25 + 64 \div 8 \times 2$.

- 21) A pizza is divided among four children. The first child is given $\frac{1}{6}$ of the pizza. The other three children share the rest equally among themselves. What fraction of the pizza will each of the other three children get?

Answer: _____

22) $9 \times \frac{3}{4} = \frac{3}{4} + \frac{3}{4} + \square + \frac{3}{4} + 3 \times \frac{3}{4}$

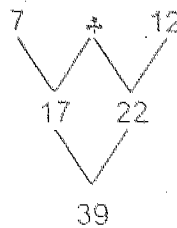
What is the missing number in the box?

Answer: _____

- 23) Find the value of $540.2 \div 5$

Answer: _____

- 24) Study the number pattern.



What number should replace +?

Answer: _____

- 25) A solid metal block 16 cm by 8 cm by 4 cm is melted down and recast into the shape of a cube. What is the length of each edge of the cube?

Answer: _____ cm

- 26) What is the maximum number of cubes of side 4 cm that can be put into a rectangular box measuring 24 cm by 15 cm by 10 cm?

Answer: _____

- 27) A show started at 6.45 pm and ended $1\frac{3}{4}$ h later. At what time did the show end?

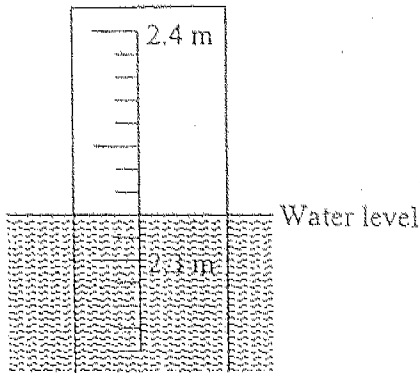
Answer: _____ pm

- 28) Find the height of a triangle with an area of 56 cm^2 and base 8 cm.

Answer: _____ cm

- 29) Alvin has a piece of string 1 m 5 cm long. He cut off 7.4 cm of the string. Find the length of the remaining string in cm.

- 30) The figure shows part of a post which is used for measuring the height of water level. What is the height of the water level indicated by the post?

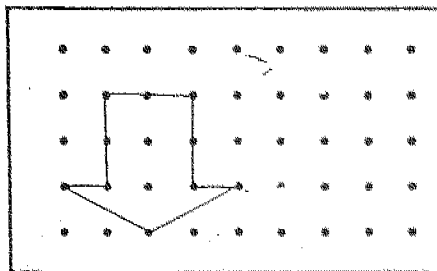


Answer: _____ m

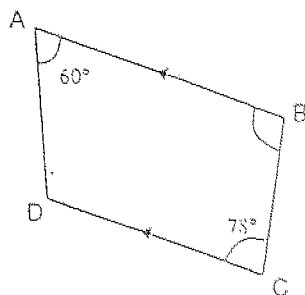
- 31) Mary has 4 fifty-cent coins, 12 twenty-cent coins and 11 five-cent coins. How much money does she have?

Answer: \$ _____

- 32) Complete the tessellation below with 2 more unit shapes.



- 33) ABCD is a trapezium. Find $\angle ABC$. Diagram is not drawn to scale.



Answer: _____ °

34) A car travelled a distance of 244 km from 9.10am to 1.10pm. What is the average speed of the car during the journey?

Answer: _____ km/h

35) Find the average of the sum of all even numbers between 1 and 11.

Answer: _____

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.

- 36) The sum of 4 numbers is 104.
If 3 of the numbers are 22, 8 and $7x$,
a) find the fourth number.
b) If $x = 9$, find the fourth number.

Answer: a) _____ [1]

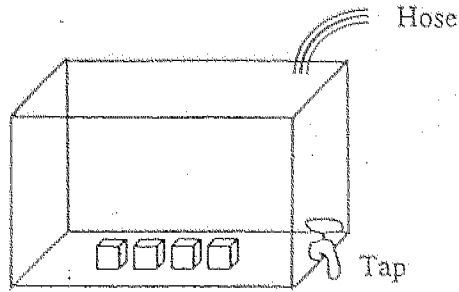
b) _____ [1]

- 37) The table shows the rates of charges at a car park.

8.00am to 5.00pm	\$1.50 per hour or part thereof
After 5.00pm	\$1 per hour or part thereof

If Mr Lim parked his car from 10am to 7.30 pm, how much did he pay?

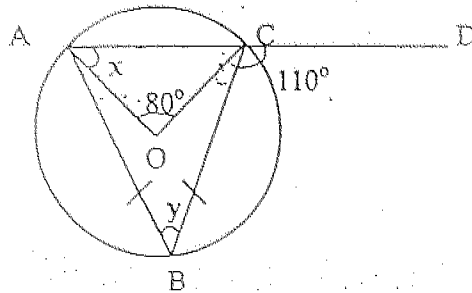
38)



An empty tank measuring 50cm by 30cm by 20cm contains 4 identical cubes of side 10 cm. Water flows in from a hose at a rate of 7l per minute and flows out from a tap in the tank at a rate of 3l per minute. How long does it take to fill up the tank completely?

Answer: _____ [3]

39)



In the figure above, not drawn to scale, O is the centre of the circle. ACD is a straight line. Find angle x and y . (3 marks)

Answer: $x =$ _____ [1]

40i) Draw a parallelogram ABCD in which $CD = 9\text{ cm}$, $AD = 6\text{ cm}$ and $\angle CDA = 80^\circ$. Draw a line to join point B to point D. [2]

ii) From the construction above, find the length of line BD.

Answer: _____ [1]

41) A pupil answered 20 quiz questions and scored 44 points. For each correct answer, 5 points were given. For each wrong answer, 3 points were deducted. How many questions did the pupil answer correctly?

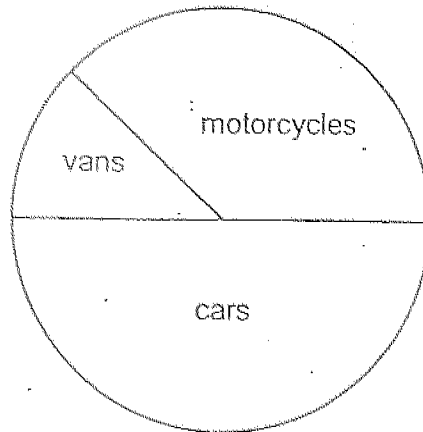
- 42) A total of 500 blue and green buttons were packed in a box. There were 80 more green buttons than blue buttons. 24 blue buttons were sold and some more green buttons were bought. There were twice as many green buttons as blue buttons in the end. How many green buttons were bought later?

Answer: _____ [4]

- 43) A mango costs 5 times as much as a pear. Mr Lim spent $\frac{5}{7}$ of his money on mangoes and $\frac{1}{2}$ of the remainder on 9 pears. How many mangoes did he buy?

- 44) Mr Goh and Mr Ho each have some apples. If Mr Goh sells 60 apples per day and Mr Ho sells 30 apples per day, Mr Goh will have 400 apples left when Mr Ho has sold all his apples. If Mr Goh sells 30 apples per day and Mr Ho sell 60 apples per day, Mr Goh will have 700 apples left when Mr Ho has sold all his apples.
How many apples does Mr Goh has?

- 45) There are 160 vehicles in a car park. The pie chart represents the number of each type of vehicles. There are three times as many motorcycles as vans. Pie chart is not drawn to scale.



- (a) How many motorcycles are there?
(b) What fraction of the number of vehicles are vans?
(c) The cars consist of big cars and small cars. If $\frac{1}{4}$ of the cars are big cars, what fraction of the vehicles are small cars?

Answer: a) _____ [1]

b) _____ [1]

- 46) 40% of the members of a swimming club were male. There were 160 members in the club. In June, some more male members joined the club and the percentage of male members became 75%.
- a) Eventually, how many male members were there in the club?
 - b) A monthly subscription fee of \$49 was charged to all members. How much money did the club collect from all the members in June?

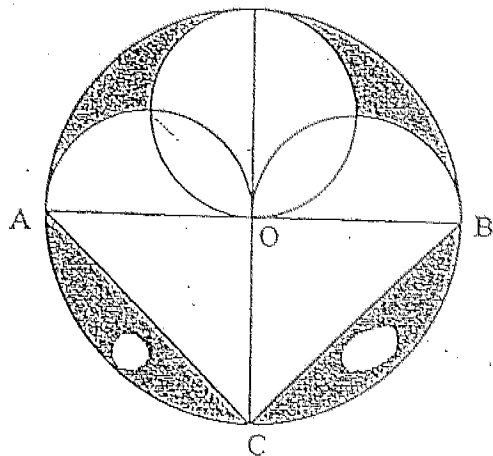
Answer: a) _____ [2]

b) _____ [2]

- 47) A, B, and C had a total weight of 115 kg. After a year, A's weight was doubled, B's weight increased by 15 kg and C's weight reduced by 5 kg. As a result, A became twice as heavy as B and B became twice as heavy as C. What was B's weight at first?

- 48) The figure is made up of one circle, 4 semi-circles and a triangle. O is the center of the circle. AB is 28 cm. Find the total area of the shaded part.

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



Answer: _____ [5]

- 49) Mr Chen travelled from Town C to Town D which was 500 km away. He started his journey at 9.00am and drove at an average speed of 70km/h for 5 h. Then he covered $\frac{3}{5}$ of the remaining journey at an average speed of 50km/h and completed the rest of the journey in 1 h 32 min. What time did he arrive at Town D?

50) The ratio of the number of marbles received by John and Peter was 4 : 7 respectively. The ratio of the number of marbles received by Peter and Sam was 9 : 5. John gave $\frac{1}{12}$ of his marbles to Sam.

Peter gave $\frac{1}{9}$ of his marbles to Sam. Eventually, Sam had 135 marbles.

- a) Find the ratio of the number of John's marbles to Sam's marbles at first.
- b) Find the total number of marbles received by the 3 boys.

Answer: a) _____ [1]

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PRIMARY 6 PRELIMINARY EXAMINATION 2004
MATHEMATICS

SAL

- 01. 2
- 02. 2
- 03. 3
- 04. 2
- 05. 1
- 06. 1
- 07. 3
- 08. (2)
- 09. 1
- 10. 4
- 11. 3
- 12. 3
- 13. 1
- 14. 1
- 15. (3)

- 16) 5593
- 17) $4/9$
- 18) 0.2
- 19) 5 badges
- 20) 41
- 21) $5/18$
- 22) 4
- 23) 108.04
- 24) 10
- 25) 8
- 26) 36
- 27) 8.30
- 28) 14
- 29) 97.6
- 30) 2.32
- 31) 4.95
- 32)
- 33) 102
- 34) 61
- 35) 6
- 36) a) $(74-7x)$
b) 11
- 37) \$ 13.50
- 38) $6 \frac{1}{2}$ min
- 39) $x = 50^\circ$
 $y = 40^\circ$
- 40) i)
ii) 11.6 cm
- 41) 13 questions
- 42) 82 green buttons
- 43) 9 mangoes
- 44) 800 apples
- 45) a) 60 motorcycles
b) $1/8$
c) $3/8$
- 46) a) 288 males
b) \$ 18816
- 47) 35 kg
- 48) 168 cm^2
- 49) 5.20 p.m.
- 50) a) 36 : 35
b) 402 marbles

32)

