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Anglo-Chinese School (Primary) / Anglo-Chinese School (Junior)

PRELIMINARY EXAMINATION 2009

MATHEMATICS

PAPER 1

BOOKLET A

Name : _____ ()

Class : P 6 . ()

Date : 13 August 2009

Total Time for Booklets A and B : 50 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. You are not allowed to use a calculator.

This question paper consists of 8 printed pages. (Inclusive of cover page)

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.

1 Which of the following is nine hundred and seven thousand and eighty-two in figures?

(1) 97 082

(2) 907 082

(3) 9 007 082

(4) 9 070 082

2 Round off 6.579 to 2 decimal places.

(1) 6.50

(2) 6.57

(3) 6.58

(4) 6.60

3 Fourteen hundredths is the same as _____.

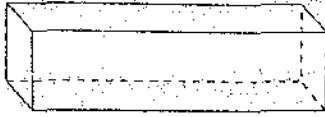
(1) $\frac{7}{5}$

(2) $\frac{7}{50}$

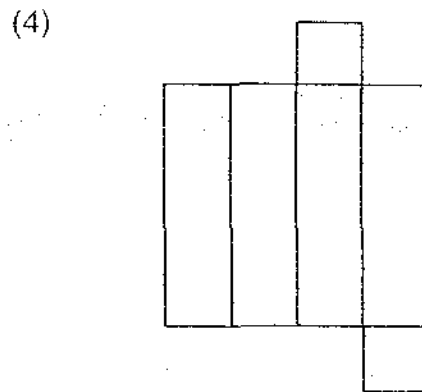
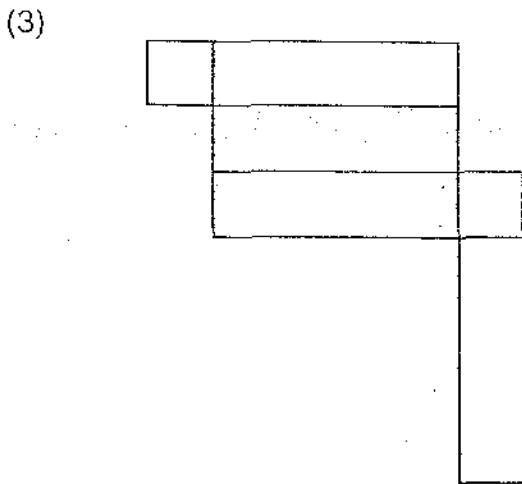
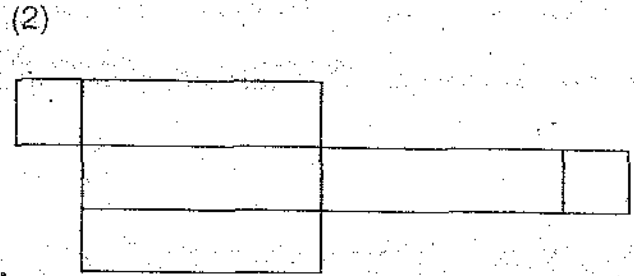
(3) $\frac{7}{500}$

(4) $\frac{7}{5000}$

4 The figure shows a solid.



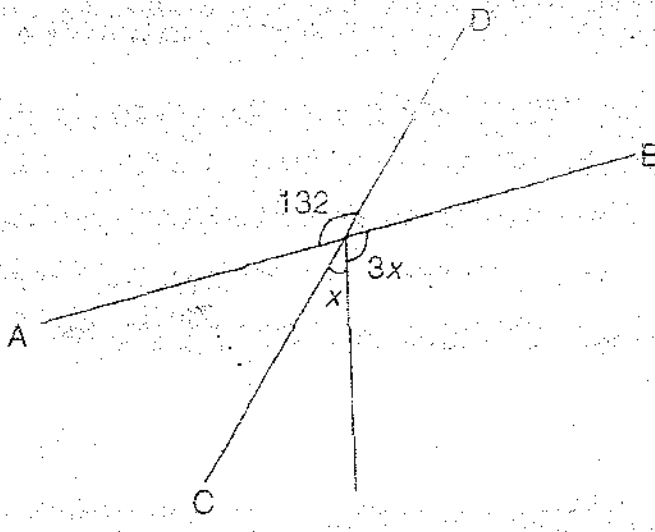
Which of the following is **not** a net of the solid?



5 Jonathan is $1\frac{1}{5}$ times as tall as Peter. If their total height is 341 cm, what is Peter's height?

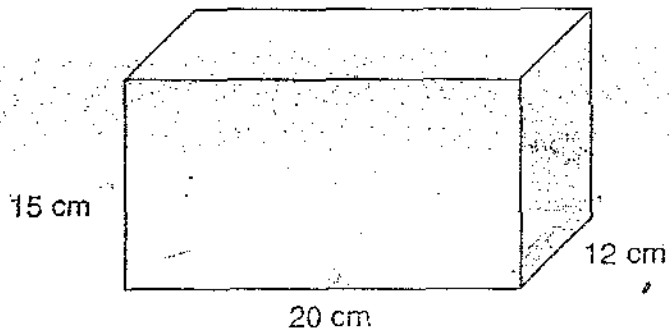
- (1) 31 cm
- (2) 62 cm
- (3) 155 cm
- (4) 186 cm

6 AB and CD are straight lines. Find the value of x in the figure below.



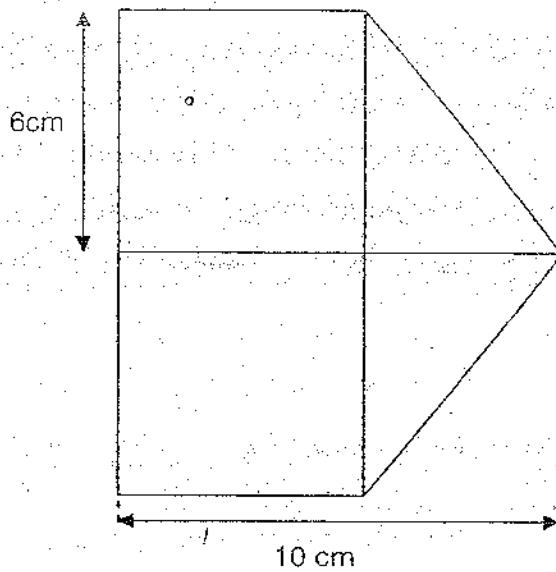
- (1) 33°
- (2) 44°
- (3) 48°
- (4) 132°

7 Cubes of side 2 cm are packed into a rectangular container measuring 20 cm by 12 cm by 15 cm. What is the maximum number of cubes that can be packed into the container?



- (1) 420
- (2) 450
- (3) 480
- (4) 3600

- 8 The figure is made up of 2 identical right-angled triangles and 2 identical squares. What is the area of the figure?

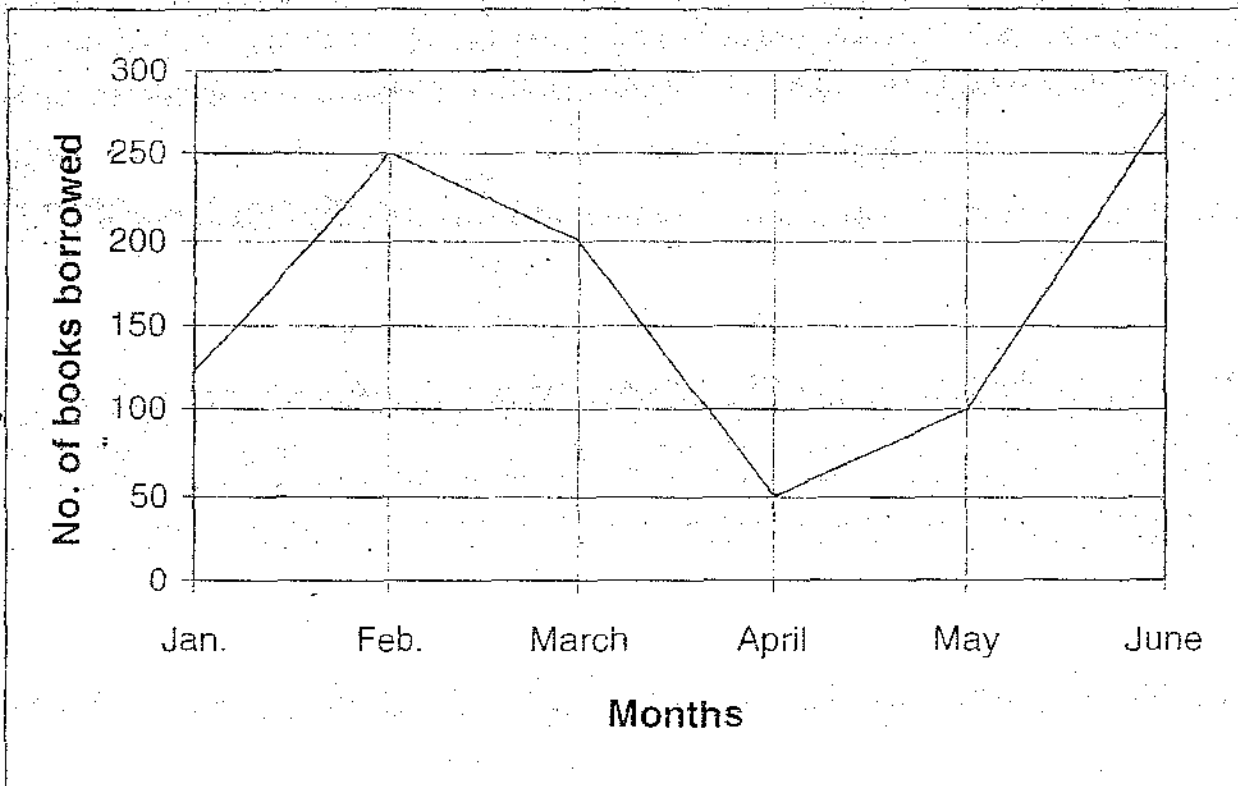


- (1) 12 cm^2
(2) 36 cm^2
(3) 48 cm^2
(4) 96 cm^2

- 9 Mrs. Lim bought a handbag for \$z. She had to pay 7% GST. How much did she pay for the handbag?

- (1) $\$(z + 7)$
(2) $\$(z + \frac{7}{100})$
(3) $\$(\frac{7z}{100})$
(4) $\$(\frac{107z}{100})$

The line graph shows the number of books borrowed from the library from January to June. Study it and answer question 10.



10 25 of the books borrowed in February were not returned to the library. What fraction of the books borrowed in February were returned?

(1) $\frac{1}{10}$

(2) $\frac{1}{4}$

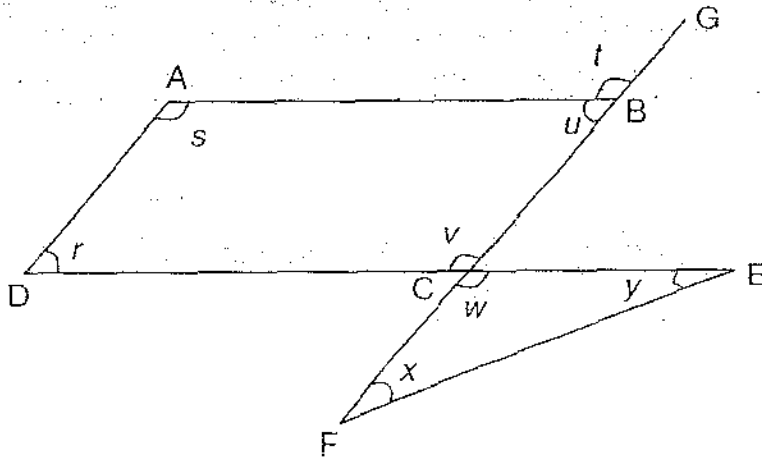
(3) $\frac{3}{4}$

(4) $\frac{9}{10}$

11. At 11 a.m., a tap was turned on to fill an empty tank with water. At 2 p.m., the tank was $\frac{1}{3}$ filled with water. At what time would the tank be $\frac{8}{9}$ filled with water flowing from the tap at this rate?

- (1) 6 p.m.
- (2) 7 p.m.
- (3) 9 p.m.
- (4) 10 p.m.

12. In the figure below, ABCD is a parallelogram. FCG and DCE are straight lines. Which one of the following statements is false?



- (1) $\angle u + \angle w = 180^\circ$
- (2) $\angle y + \angle x = \angle u$
- (3) $\angle y + \angle x = \angle t$
- (4) $\angle w = \angle s$

- 13 Mr Lim needs to be in Johore Bahru for a meeting at 11 a.m. He plans to take the bus to Johore Bahru and then catch a 15-minute taxi ride to his destination. What is the latest time he must catch the bus from the Queen Street Bus Depot to be punctual for his meeting?

Departure Queen Street Bus Depot	Arrival Johore Bahru City Link
7.30 am	8.45 am
8.15 am	9.30 am
9.00 am	10.15 am
9.45 am	11:00 am

- (1) 7.30 am
(2) 8.15 am
(3) 9.00 am
(4) 9.45 am
- 14 Mr. Chan is 5 times as old as his son now. If he is 28 years older than his son now, what will their average age be in 6 years time?
- (1) 24
(2) 27
(3) 42
(4) 54
- 15 The number of boys in a class is twice the number of girls. What is the ratio of the number of girls to the total number of pupils in the class?
- (1) 1 : 2
(2) 1 : 3
(3) 2 : 3
(4) 3 : 4

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Anglo-Chinese School (Primary) / Anglo-Chinese School (Junior)

PRELIMINARY EXAMINATION 2009

MATHEMATICS

PAPER 1

BOOKLET B

Name : _____ ()

Class : P 6 . ()

Date : 13 August 2009

Total Time for Booklets A and B : 50 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. You are **not** allowed to use a calculator.

PAPER 1	POSSIBLE MARKS	MARKS OBTAINED
BOOKLET A	20	
BOOKLET B	20	

This question paper consists of 5 printed pages. (Inclusive of cover page)

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 What fraction of 4 kg is 250 g?
Express your answer in the simplest form.

Answer : _____

- 17 Find the value of $2\frac{3}{7} + 3\frac{2}{3}$.

Answer : _____

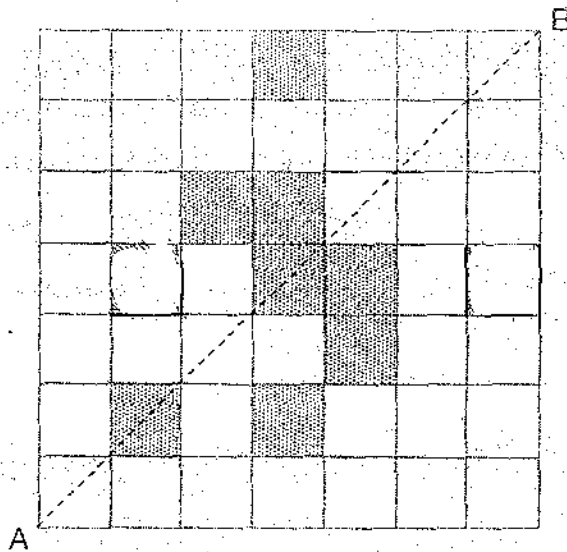
- 18 Joshua was 9 years 2 months old on 1 July 2009. How old was he on 1 September 2002?

Answer : _____ years _____ months

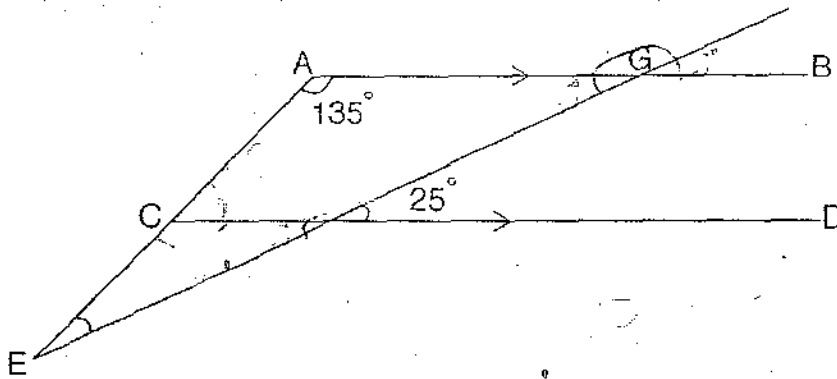
- 19 Find the value of $(26 \div 4 \times 2) - 21 \div 7$.

Answer : _____

20 Shade two more unit shapes to make a symmetric pattern which has AB as a line of symmetry.



21 In the figure below, AB, CD, EG and AE are straight lines with AB parallel to CD. $\angle CAG = 135^\circ$ and $\angle GFD = 25^\circ$. Find $\angle AEF$.



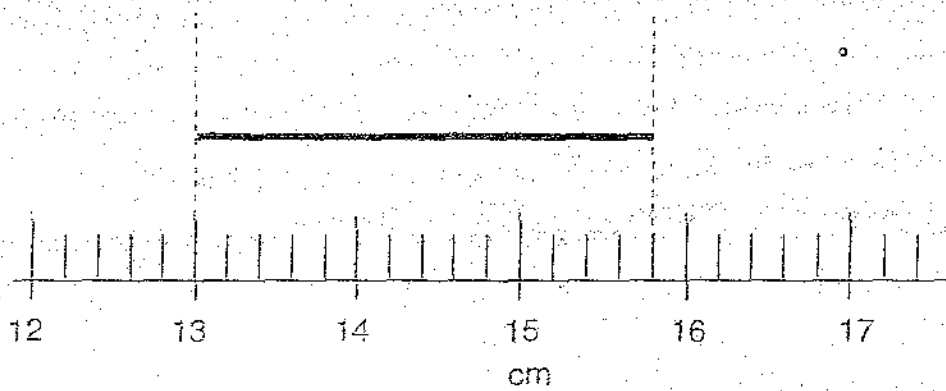
Answer : _____

22 How many eighths are there in $3\frac{1}{2}$?

Answer : _____

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23 What is the length of the piece of wire as shown in the figure?



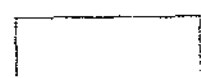
Answer : _____ cm

24 The perimeter of a rectangle is 80 cm. The breadth is $\frac{1}{3}$ the length. What is the area of the rectangle?

Answer : _____ cm²

25 Simplify $18(+8k) - 10(-10k)$

Answer : _____



Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

26 Find the smallest 3-digit number divisible by both 3 and 5.

Answer : _____

27 A rectangular park had a length of $3b$ metres and a breadth of b metres. John ran round the park 3 times. Find the total distance John ran if $b = 50$.

Answer : _____ km

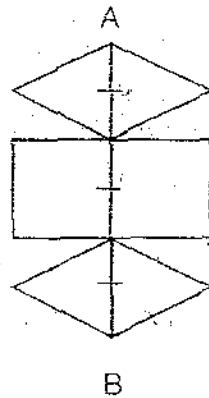
28 There are 360 pupils in Primary Six. 190 pupils are boys. 20% of the girls wear spectacles. How many girls do not wear spectacles?

Answer : _____

29 Jane made 15 bookmarks from 11.25 a.m. to 12.15 p.m. At this rate, how many bookmarks can she make in half an hour?

Answer : _____

30 Adhi had a piece of wire and bent it into the shape as shown in the figure below. In the figure, there are 4 equilateral triangles and 2 squares. How much wire was used to make this shape if AB is 12cm?



Answer : _____ cm

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Anglo-Chinese School (Primary) / Anglo-Chinese School (Junior)

PRELIMINARY EXAMINATION 2009

MATHEMATICS

PAPER 2

Name : _____ ()

Class : P 6 . ()

Date : 13 August 2009

_____ Parent's Signature

Total Time for Paper 2 : 1 hour 40 minutes

INSTRUCTIONS TO PUPILS

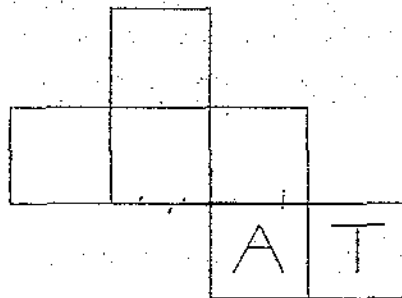
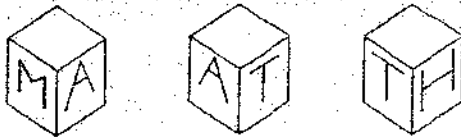
1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Show all your working clearly as marks are awarded for correct working.
5. Write your answers in this booklet.
6. You are allowed to use a calculator.

	POSSIBLE MARKS	MARKS OBTAINED
PAPER 1 (BOOKLET A)	20	
PAPER 1 (BOOKLET B)	20	
PAPER 2	60	
Total	100	

This question paper consists of 14 printed pages. (Inclusive of cover page)

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

- 1 The diagrams below show three different orientations of the same cube. The letters on the faces of the cube read M A T H. Fill in the missing letter in the correct orientation on the net.



- 2 Box X contains 6 times as many oranges as Box Y.
 Box Z contains 111 fewer oranges than Box X.
 If Box Y contains $\frac{1}{3}$ the number of oranges in Box Z, find the total number of oranges in the 3 boxes.

Answer

3 The circumference of a circular disc is 154 cm. What is the radius of the circular disc? (Take $\pi = \frac{22}{7}$)

Answer : _____ cm

4 Barry poured 230 ml of lemonade into a jug that already contained 1.6 litres of juice. He then poured out the drink equally into 3 cups. What is the volume of the drink in each cup?

Answer : _____ litres

5 If it takes 1 worker 4 days to paint a flat, how many days will it take 8 workers to paint 4 flats if they all work at the same rate?

Answer : _____

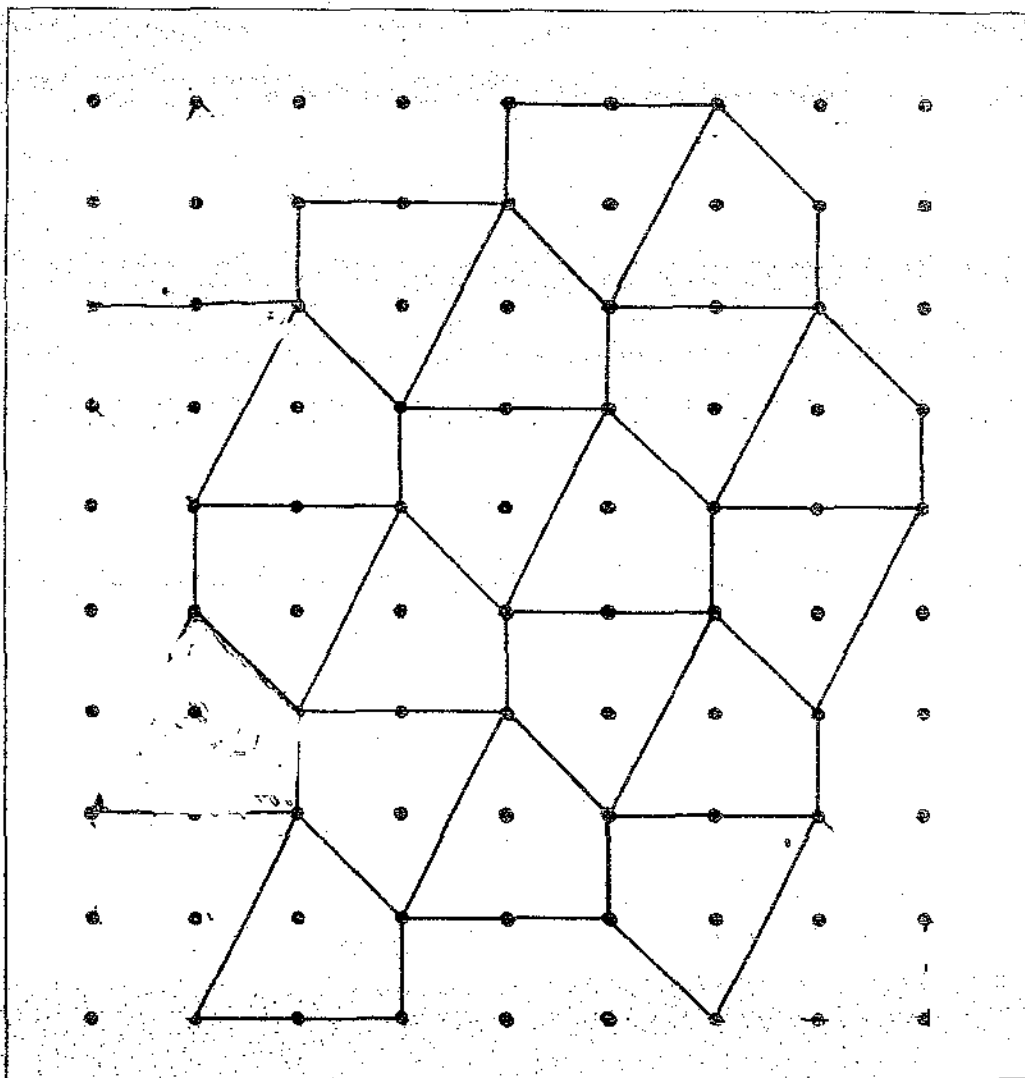
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For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided.

The number of marks available is shown in brackets [] at the end of each question.

(50 marks)

6 The pattern in the box shows part of a tessellation.



(a) Shade a unit shape of the tessellation. [1]

(b) Extend the tessellation by drawing four more unit shapes in the space provided in the box. [2]

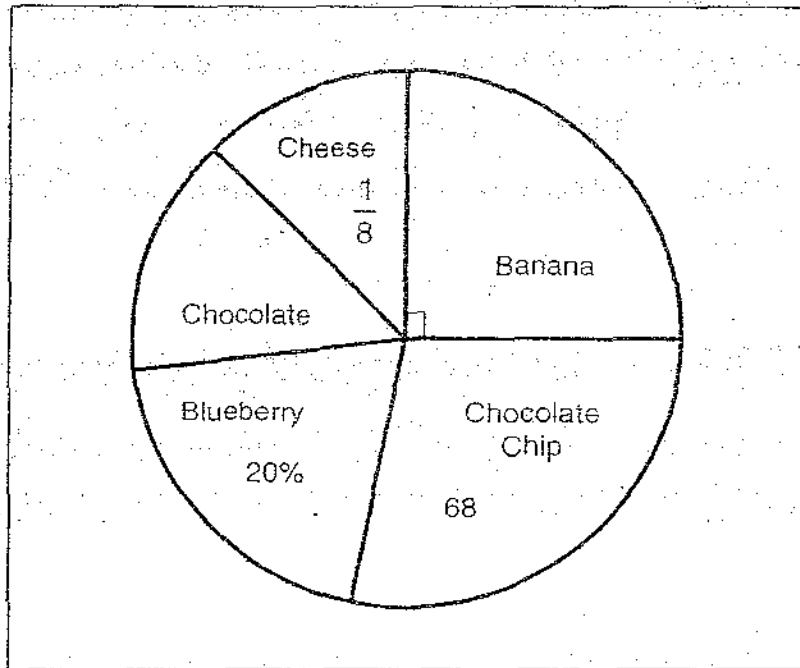
- 7 A bar of chocolate is sold at \$3.50 each or in packets of 4 at \$12 per packet. Alice wants to buy exactly 38 bars of chocolate for a party. What is the least amount of money that Alice could have spent on the chocolates?

Ans: _____ [3]

- 8 The ratio of the number of pencils to the number of erasers in a box was 2:3. When 42 pencils were added and 15 erasers were removed, the ratio of the number of pencils to erasers became 3:4. How many erasers were there left in the box?

Ans: _____ [3]

- 9 The pie chart below shows the different types of muffins sold in a bakery. A total of 240 muffins were sold.

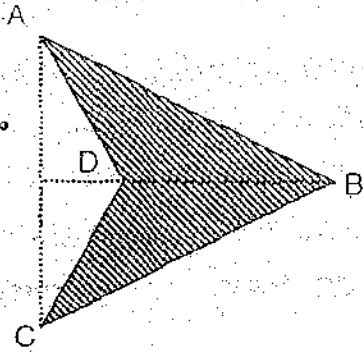


- a) How many banana muffins were sold?
b) If a chocolate muffin cost \$1.60, how much did the bakery collect from the sale of chocolate muffins?

Ans: a) _____ [1]

b) _____ [2]

- 10 Given that the length DB is 14 cm and the shaded region is 115 cm^2 , find the length AC, correct to 2 decimal places.



Ans: _____ [3]

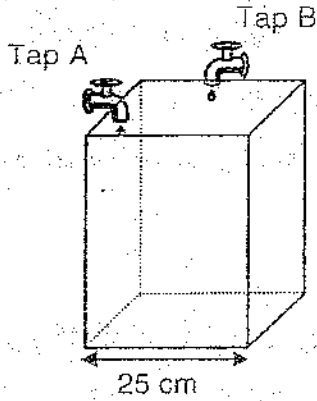
- 11 Container A has 150 more marbles than Container B. If 30 marbles are being transferred from Container B to Container A, there will be thrice as many marbles in Container A as Container B. How many marbles are there in Container A in the beginning?

120

Ans: _____ [4]

Sub-Total:

12 Water flows from Tap A at a rate of 250 ml per minute and from Tap B at a rate of 350 ml per minute. When both taps are turned on for 9 minutes, the water from both taps fill a container with a square base of side 25 cm . What is the height of the water level?

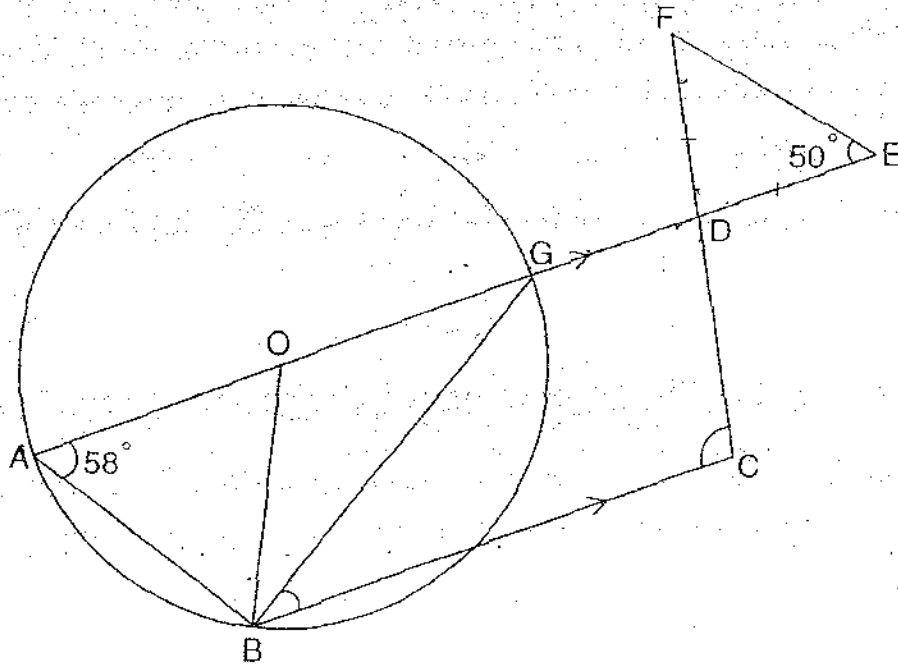


Ans: _____ [4]

Sub-Total:

13 In the figure below, O is the centre of the circle and AE is parallel to BC.

$DF = DE$, $\angle OAB = 58^\circ$ and $\angle FED = 50^\circ$



- a) Find $\angle GBC$.
- b) Find $\angle DCB$.

Ans: a) _____ [2]

b) _____ [2]

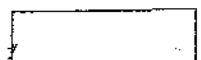
↔

14. At 9.30 a.m., Mr Yeo left Town A for Town B driving at a speed of 75 km/h throughout his journey. At 10.30 a.m., Mr Lee also left Town A for Town B driving at a certain speed. He kept to the same speed throughout his journey. At 1.30 p.m., both of them passed a Shopping Mall that was 150 km away from Town B. How many minutes earlier did Mr Lee reach Town B than Mr Yeo?

Ans: _____

[4]

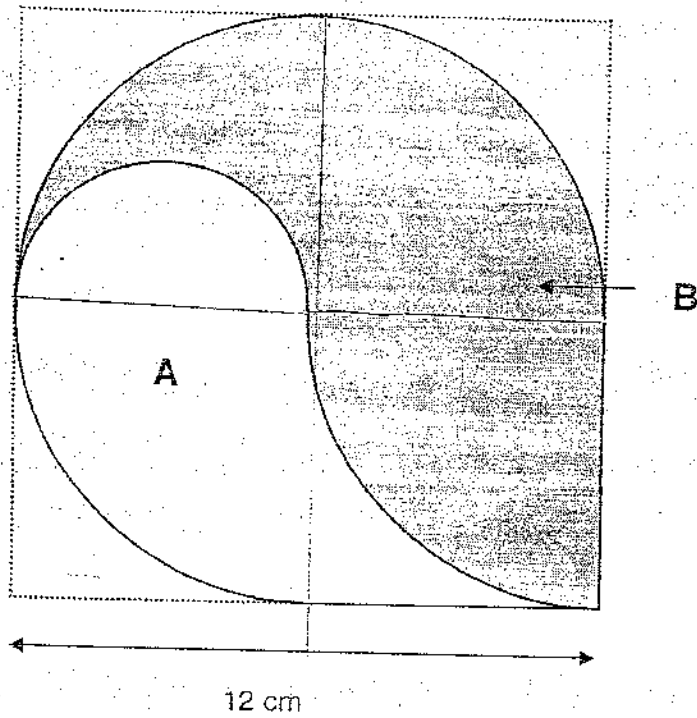
24



- 15 There were 192 apples and pears in a box. John removed $\frac{2}{5}$ of the apples from the box and he added 24 pears into the box. As a result, there was an equal number of apples and pears left in the box. How many more apples than pears were there in the box at first?

Ans: _____ [4]

- 16 The figure below is made up of semicircles and quadrants. Find
- the area of A
 - the perimeter B
- Leave your answers correct to 1 decimal place.



Ans:

26
181

17 65% of the animals on a farm were cows and the rest were goats. When 240 more cows and goats were added to the farm, the percentage of cows increased by 20% and the number of goats doubled. How many goats were there on the farm at first?

Ans: _____ [5]

<7

18 There are some black and white marbles in a bag.

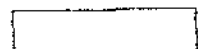
If 20 black marbles are removed from the bag, the total number of marbles left will be 7 times the number of black marbles left.

If 50 white marbles are removed from the bag, the total number of marbles left will be 5 times the number of black marbles left.

How many marbles are there in the bag?

Ans: _____ [5]

28



ANSWER SHEET

EXAM PAPER 2009

SCHOOL : ACS PRIMARY
SUBJECT : PRIMARY 6 MATHS

TERM : SA2

1.	2	6.	1	11.	2
2.	3	7.	1	12.	3
3.	2	8.	4	13.	3
4.	2	9.	4	14.	2
5.	3	10.	4	15.	2

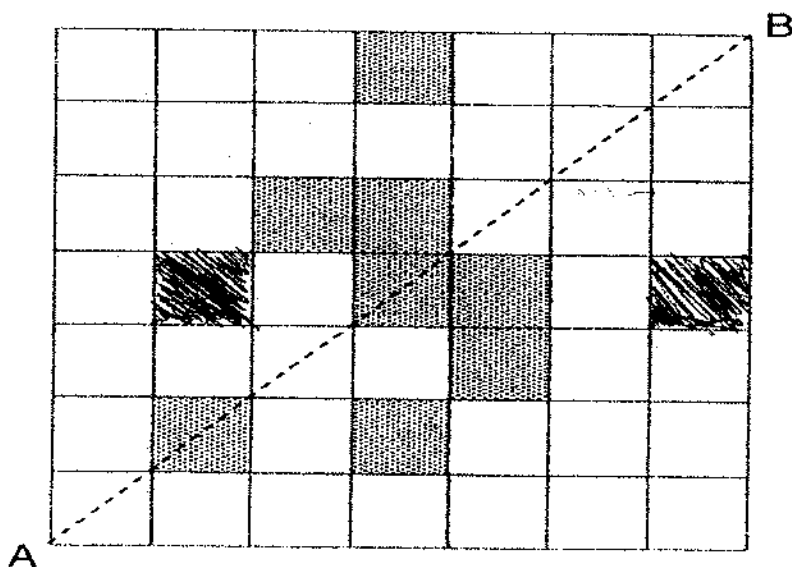
16. $\frac{1}{16}$

17. $6\frac{2}{21}$

18. 2 years 4 months

19. 31

20.



21. 20°

22. 28

23. 2.8cm

24. 300cm^2

25. 8-2k

26. 105

27. 1.2km

28. 136 girls

29. 9 bookmark

30. 68cm

Paper 2

1.

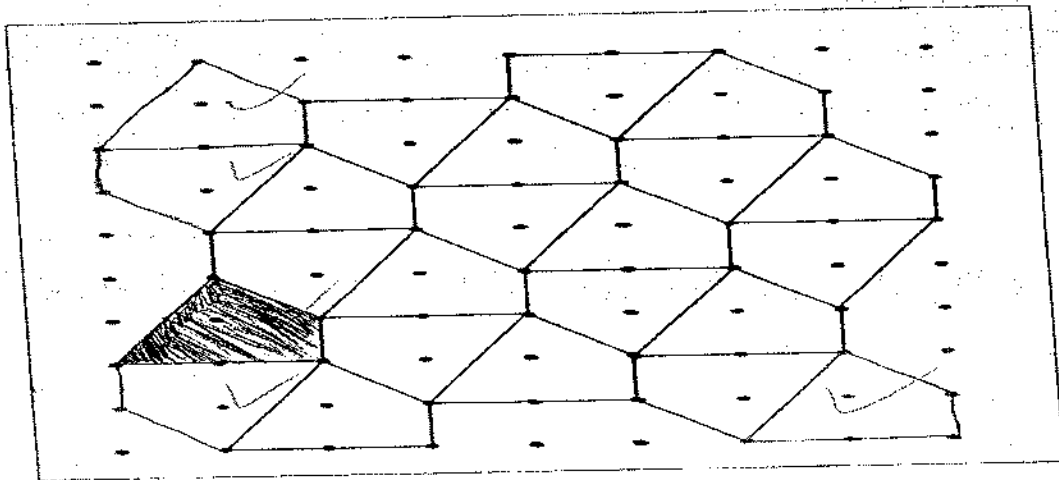


2.370 oranges

3.24.5cm

4.0.61 litres 5.2 days

6.



7. \$115

8.624

9.a)60

9.b)\$54.40

10.16.43cm

11.285 marbles

12.8.64cm

13.a) 32°

b) 100°

14.30 mins

15.78

16.a) 50.1cm^2

b) 43.7cm

17.175 goats

18.475 marbles

--- END---