



NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2016
PRIMARY 6

MATHEMATICS

Paper 1

Section A: 15 Multiple Choice Questions (20 marks)

Section B: 15 Short Answer Questions (20 marks)

Total Time for Paper 1: 50 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. You are not allowed to use calculator for Paper 1.

Marks Obtained

Paper 1	Booklet A		/ 40
	Booklet B		
Paper 2			/ 60
Total			/ 100

Name : _____ ()

Class : 6 _____

Date : _____ Parent's Signature : _____

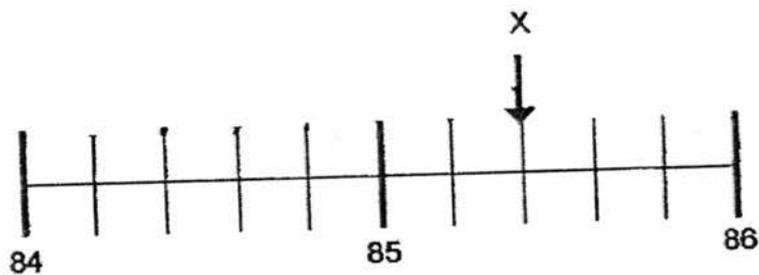
Section A (20marks)

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. Look at the number line below. What is the value of X?



- (1) 84.7
(2) 85.2
(3) 85.4
(4) 86.6
2. Express $\frac{1}{3}$ as a percentage.

- (1) $\frac{1}{3}\%$
(2) $3\frac{1}{3}\%$
(3) $33\frac{1}{3}\%$
(4) $333\frac{1}{3}\%$

3. Which one of the following is the same as $\frac{3}{3} + 4$?

(1) $\frac{7}{3} \times 4$

(2) $4 \times \frac{3}{7}$

(3) $3 \times \frac{4}{7}$

(4) $\frac{7}{3} \times \frac{4}{1}$

4. At a concert, $\frac{7}{2}$ of the audience are children. What is the ratio of the number of adults to the number of children?

(1) 5 : 2

(2) 5 : 7

(3) 7 : 2

(4) 7 : 5

5. There are 6 rotten apples and 24 good apples in a basket. What fraction of all the apples is rotten?

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

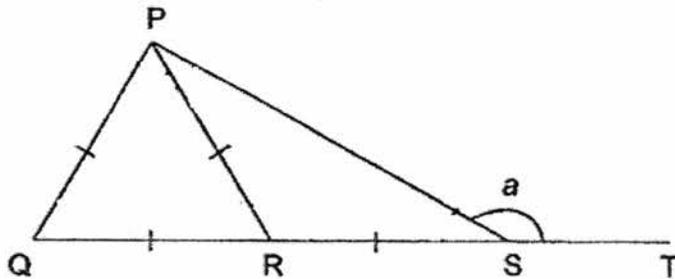
(2) $\frac{4}{1}$

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

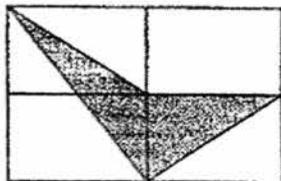
(4) $\frac{5}{4}$

6. What is the value of $10 \div 200$?
- (1) 20
 - (2) 2
 - (3) 0.5
 - (4) 0.05
7. Amy, Bala and Chin shared a box of chocolates in the ratio 4 : 3 : 2 respectively. If Bala received 60 chocolates, how many chocolates did Chin receive?
- (1) 20
 - (2) 30
 - (3) 40
 - (4) 80
8. Mr Tan bought a luggage for \$60. In addition, he had to pay 7% GST. How much did he pay for the luggage after GST?
- (1) \$55.80
 - (2) \$64.20
 - (3) \$67.00
 - (4) \$102.00

9. The figure below is not drawn to scale. PQR is an equilateral triangle, PRS is an isosceles triangle and QT is a straight line. Find $\angle a$.



- (1) 30°
 (2) 60°
 (3) 120°
 (4) 150°
10. The figure below is made up of 4 similar rectangles.
 What fraction of the figure is shaded?



- (1) $\frac{1}{2}$
 (2) $\frac{1}{4}$
 (3) $\frac{3}{4}$
 (4) $\frac{3}{8}$

11. Hazel spent $\frac{1}{4}$ of her money on a pencil case and $\frac{1}{6}$ of the remainder on some erasers. She spent \$90 altogether. How much money had she left?
- (1) \$128
(2) \$150
(3) \$216
(4) \$240
12. $\frac{3}{4}$ of Fuhua's stamps is equal to $\frac{2}{5}$ of Rajesh's stamps. Find the ratio of the number of Rajesh's stamps to the number of Fuhua's stamps.
- (1) 2 : 3
(2) 3 : 2
(3) 8 : 15
(4) 15 : 8
13. 6 pupils sat for a Mathematics test and the lowest score obtained was 12 out of 60. Find the highest possible average score of these 6 pupils.
- (1) 10
(2) 36
(3) 52
(4) 60

14. A pair of shoes and socks cost \$60. The cost of the socks is 20% of the total cost of the shoes and socks. Find the cost of the pair of shoes.

(1) \$12

(2) \$36

(3) \$48

(4) \$72

15. For every 3 glasses of rose syrup, Lihua mixes 7 glasses of milk to make some bandung. If the capacity of each glass is 100 ml, how many glasses of milk are needed to make 6 litres of bandung?

(1) 18

(2) 21

(3) 42

(4) 60

Section B (20 marks)

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]

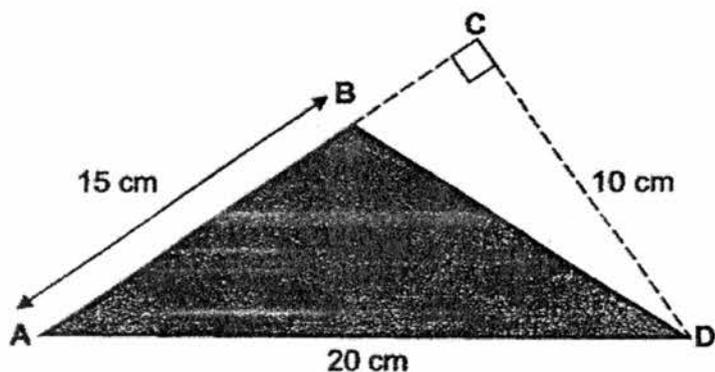
16. What fraction of 1 hour is 25 minutes?
Give your answer in the simplest form.

Ans: _____

17. The length of a piece of ribbon is 16 m. Sandra used $\frac{1}{4}$ of the ribbon to tie a present. Find the length of the ribbon that is left.

Ans: _____ m

18. What is the area of the shaded triangle ABD?
(The triangle below is not drawn to scale)



Ans: _____ cm²

19. Joe does his daily exercise by climbing up and down the stairs in his block. He always starts on the floor where his flat is. He goes up 5 floors, down 7 floors and then up 4 floors, to finish on the 9th floor. On what floor is Joe's flat?

Ans: _____th floor

20. Aaron increased his savings from \$40 last month to \$80 this month. Find the percentage increase in his savings.

Ans: _____%

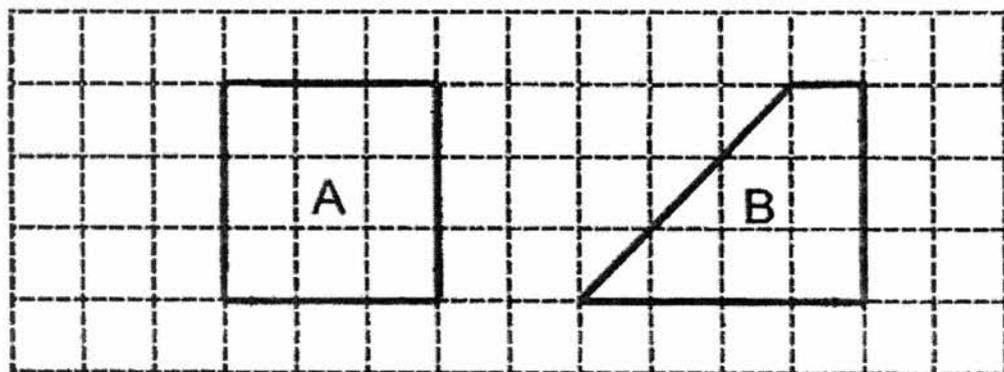
21. Michelle's age is $\frac{3}{5}$ of the total age of Katherine and herself. Katherine is 20 years old. How old is Michelle?

Ans: _____ years old

22. A glass is 36% filled with water. All the water is then poured into an empty jar which has a capacity thrice that of the glass. What percentage of the jar is filled with water?

Ans: _____%

23. Each shape on this square grid has interior angles that are 45° , 90° or 135° . Complete the table below.

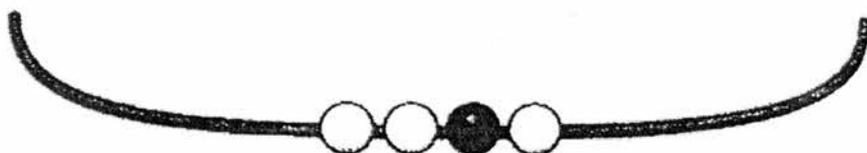


	A	B
Number of 45° angles	0	
Number of 90° angles	4	
Number of 135° angles	0	

24. I am thinking of two decimals. Each decimal is in 1 decimal place. When I add them, the answer is 1. When I multiply them, the answer is 0.09. What are the two decimals?

Ans: _____ and _____

25. Nurul has a necklace as shown below.



What is the least number of black beads and the least number of white beads Nurul needs to add to the necklace to make the ratio of black beads to white beads 3 : 2?

Ans: Black _____

White _____

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 spaces provided. For each questions which require units, give your answers in the units stated. [10 marks]

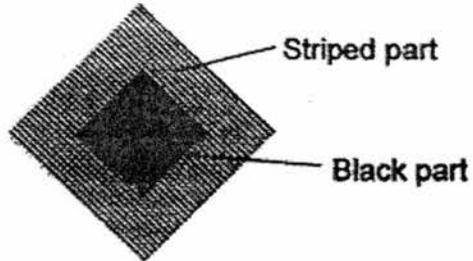
26. Shirley counted 50 flamingos at the bird park. Some of the birds are standing on two legs. Some are standing on one leg. She counted a total of 79 standing legs. How many flamingos are standing on one leg?

Ans: _____

27. There are 325 pupils in an Art Club at first. If the number of boys increases by 25 and the number of girls decreases by 5%, the number of pupils in the Art Club will become 341. How many girls are there in the Art Club at first?

Ans: _____

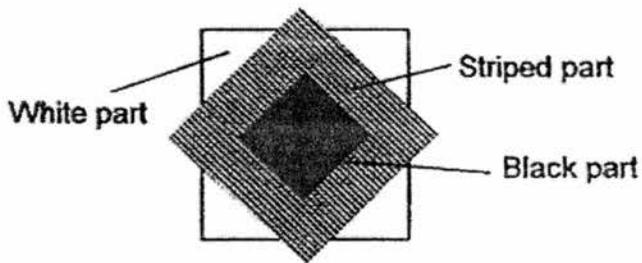
28. In the figure below, the ratio of striped part to black part is 3 : 1. The area of the striped part of the figure is 12 cm^2 .



The above figure is then placed on another white square to form a new design.

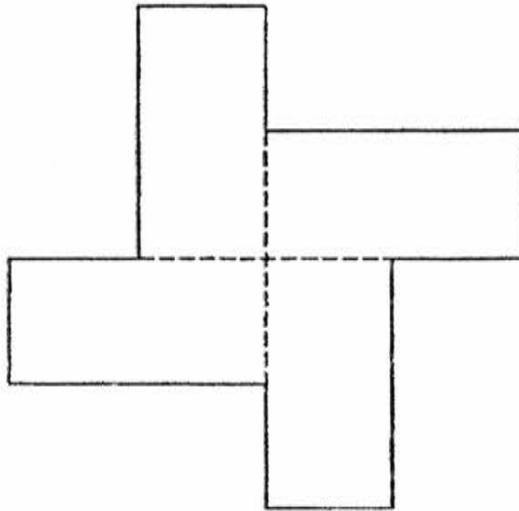
In the new design, 60% of it is striped and the rest is black and white.

What is the total area of the striped and white parts in the new design?



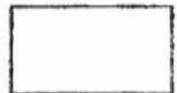
Ans : _____ cm^2

29. The figure below is made up of 4 identical rectangles.
The figure is not drawn to scale



The length of each rectangle is twice the breadth of the rectangle. If the perimeter of the figure is 80 cm, what is the area of the figure?

Ans : _____ cm²



30. The ratio of boys to girls in the hall is 3 : 7. An equal number of boys and girls left the hall to return to the classroom. If there are 200 pupils in the hall at first, what is the difference between the number of boys and girls in the hall in the end?

Ans: _____

-----END OF PAPER-----



**NAN HUA PRIMARY SCHOOL
CONTINUAL ASSESSMENT 1 – 2016
PRIMARY 6**

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 40 minutes

5 Short Answer Questions (10 marks)

13 Structured / Long Answer Questions (50 marks)

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions and show your workings clearly.
5. You are allowed to use a calculator.

Marks Obtained

Total		/ 60
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Name : _____ ()

Class : 6 _____

Date : _____

Parent's Signature : _____

Paper 2 (60 marks)

Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below it and write your answer in the space provided. Give your answers in the units stated.

1. The table below shows whether pupils in a class walk to school.

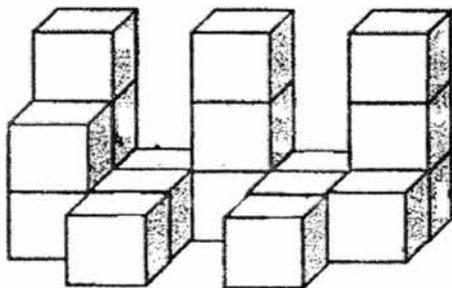
	Walk to school	Do not walk to school
Boys	2	8
Girls	5	10

- (a) What percentage of all the boys walk to school?
(b) What fraction of the pupils in the class walk to school?

Ans: (a) _____ %
(b) _____

Do not write
in this space

2. The figure below is made up of 1-cm cubes. Find the volume of the figure.



Ans: _____ cm³

3. Devi has 4 m of ribbon. She cuts as many $\frac{3}{4}$ m of ribbon from it.
(a) How many such pieces of ribbon will she get?
(b) What is the length of ribbon that is left over?

Do not write
in this space

Ans: (a) _____
(b) _____ m

4. The table below shows some exchange rates.

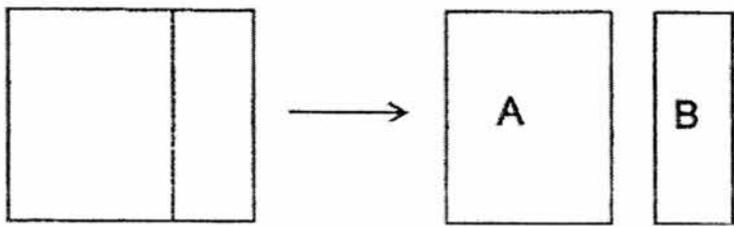
1 Singapore dollar = 0.7 American dollar
1 Singapore dollar = 3 Malaysian ringgit

Use the exchange rates to answer the following questions.

- (a) How many American dollars would you get for 500 Singapore dollars?
(b) How many Singapore dollars would you get for 150 Malaysian ringgit?

Ans: (a) _____ American dollars
(b) _____ Singapore dollars

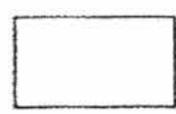
5. A square of area 64 cm^2 is cut along the dotted line to make two rectangles, A and B.



If the area of B is $\frac{1}{3}$ of A, find the perimeter of B?

Do not write
in this space

Ans : _____ cm



For each question from 6 to 18, show your workings clearly in the space below it and write your answer in the space provided. The number of marks available is shown in brackets [] at the end of each question or part-question. Remember to include the units wherever possible.

Do not write
in this space
the

6. The ratio of the number of marbles Michael had to the number of marbles Tom had was 2 : 1. After Michael gave 42 marbles to Tom, the ratio became 1 : 5. How many marbles did Tom have at first?

Ans: _____ [3]

7. Sally has some balloons. 10% of the balloons are red. The number of red balloons is $\frac{1}{5}$ the number of blue balloons. The remaining balloons are green. If there are 60 green balloons, how many balloons does Sally have altogether?

Ans: _____ [3]

8. Mrs Cheng bought some pens and rulers. Each ruler cost 40¢ and each pen cost twice as much as a ruler. She bought 10 more pens than rulers. If she paid \$20 for the pens and rulers, how many rulers did she buy?

Do not write
in this space

Ans: _____ [3]

9. Nelson had 1500 sweets and 50 goodie bags. He put 1 sweet in the first goodie bag, 2 sweets in the second goodie bag, 3 sweets in the third goodie bag and so on until all the 50 goodie bags were filled with sweets. How many sweets had he left when he had filled all the 50 goodie bags with sweets?

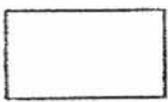
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Ans: _____ [3]

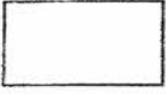
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in this space

10. Alice and Fatimah had \$820 altogether. Alice spent $\frac{2}{5}$ of her money and Fatimah spent $\frac{4}{3}$ of her money. In the end, Fatimah had thrice as much money as Alice. How much money did Alice have at first?

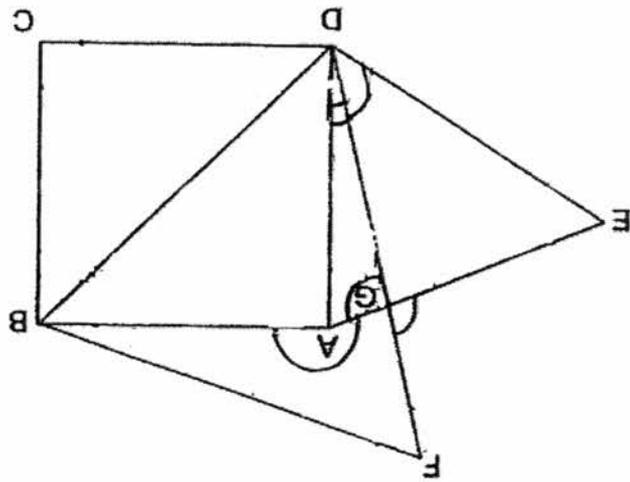
Ans: _____ [3]



Ans : (a) _____ [2]
 (b) _____ [1]



(a) Find $\angle EDF$
 (b) Find $\angle EGF$



11. In the figure below, not drawn to scale, ABCD is a square. BDF and ADE are equilateral triangles.

Do not write in this space

12. Mr Choo wants to buy some identical boxes of chocolate for \$160. A discount of 20% is given to him on the chocolates. As a result, Mr Choo is able to buy 8 more such boxes of chocolate with exactly \$160. What is the price of one box of chocolate before the discount?

Do not write
in this space

Ans: _____ [4]

13. Jun Wei had \$100 more than Ali at first. After Jun Wei's money had decreased by \$120 and Ali's money had increased by \$200, Ali had 3 times as much money as Jun Wei. What was the total amount of money they had at first?

Do not write
in this space

Ans: _____ [4]

14. Elaine had some twenty-cent coins and fifty-cent coins in a box. The percentage of the number of twenty-cent coins was 40% of the total number of coins she had. She took out 10 fifty-cent coins and put in twenty-cent coins of the same value. In the end, she had the same number of twenty-cent coins and fifty-cent coins left. What was the amount of money in the box?

Do not write
in this space

Ans: _____ [4]

15. 3 girls, Amy, Beth and Cloe divided some crystals amongst themselves. Amy took 4 crystals and $\frac{1}{4}$ of the remaining crystals. Next, Beth took 4 crystals and $\frac{1}{4}$ of the remaining crystals. Finally Cloe took the remaining 24 crystals. How many crystals were there at first?

Do not write
in this space

Ans: _____ [5]

16. Green Earth Company had a water tank that was full in the morning. The company then used 10% of the water in the afternoon and 500 litres in the evening. In the end, the water left in the tank was 20 litres less than half of the capacity of the tank. How much water was left in the tank in the end?

Do not write
in this space

Ans: _____ [5]

17. A bag contains some red and blue balls. If Jane removes 1 red ball from the bag, then $\frac{1}{7}$ of the remaining balls in the bag are red. If, instead of 1 red ball, Jane removes 2 blue balls from the bag, then $\frac{1}{5}$ of the remaining balls in the bag are red. How many balls are there in the bag at first?

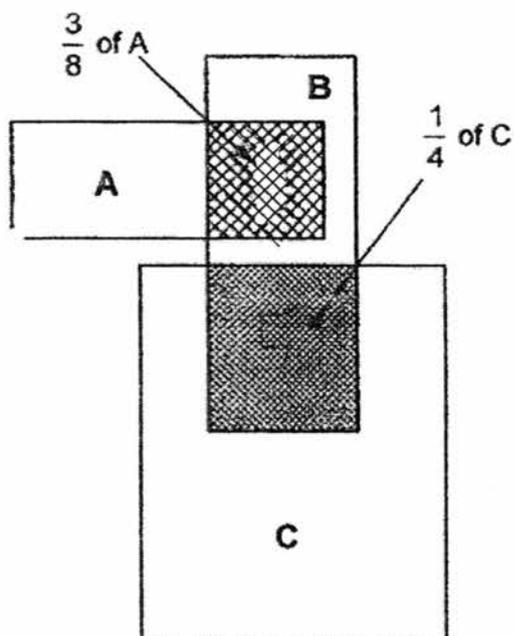
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Ans: _____ [5]

18. A figure is made up of 3 overlapped rectangles, A, B and C.

The area of rectangles A, B and C is in the ratio 4 : 5 : 10.

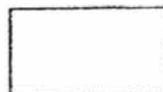
$\frac{3}{8}$ of A overlaps B and $\frac{1}{4}$ of C overlaps B. What fraction of the figure is shaded?



Do not write
in this space

Ans: _____ [5]

-----End-of-Paper-----



SCHOOL : NAN HUA PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : CA1

CONTACT :

PAPER 1 BOOKLET A

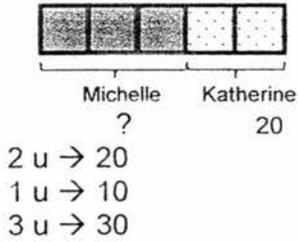
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	4	1	1	4	3	2	4	2

Q 11	Q12	Q13	Q14	Q15
2	4	3	3	3

PAPER 1 BOOKLET B

Q16) $\frac{25}{60} = \frac{5}{12}$	Ans : $\frac{5}{12}$
Q17) $1 - \frac{1}{4} = \frac{3}{4}$ $\frac{3}{4} \times 16 = 12$	Ans : 12 m
Q18) $\frac{1}{2} \times 15 \times 10 = 75$	Ans: 75 cm²
Q19) $9 - 4 = 5$ $5 + 7 = 12$ $12 - 5 = 7$	Ans : 7th floor
Q20) $80 - 40 = 40$ $\frac{40}{40} \times 100\%$	Ans : 100%

Q21)

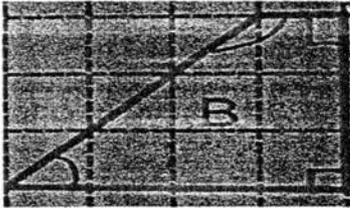


Ans: 30 yrs old

Q22) $36 \div 3 = 12$

Ans: 12%

Q23)



Ans: $45^\circ \rightarrow 1$, $90^\circ \rightarrow 2$, $135^\circ \rightarrow 1$

Q24)

	When added = 1		When multiplied = 0.09
$0.5 + 0.5 = 1$	√	$0.5 \times 0.5 = 0.25$	X
$0.4 + 0.6 = 1$	√	$0.4 \times 0.6 = 0.24$	X
$0.3 + 0.7 = 1$	√	$0.3 \times 0.7 = 0.21$	X
$0.2 + 0.8 = 1$	√	$0.2 \times 0.8 = 0.16$	X
$0.1 + 0.9 = 1$	√	$0.1 \times 0.9 = 0.09$	√

Ans: 0.1 and 0.9

Q25)

B : W
 $\times 2$ $\left(\begin{array}{l} 3 : 2 \\ 6 : 4 \end{array} \right) \times 2$

At first, B=1
 $6 - 1 = 5$
 At first, W=3
 $4 - 3 = 1$

Ans: Black 5, White 1

Q26)

No. of Flamingos on 1 leg	No. of Flamingos on 2 legs	Total legs	= 79 legs (check)
$25 \times 1 = 25$	$25 \times 2 = 50$	75	X
$24 \times 1 = 24$	$26 \times 2 = 52$	76	X
$23 \times 1 = 23$	$27 \times 2 = 54$	77	X
$22 \times 1 = 22$	$28 \times 2 = 56$	78	X
$21 \times 1 = 21$	$29 \times 2 = 58$	79	√

Ans: 21

Q27)

$325 + 25 = 350$
 $350 - 341 = 9$
 $5\% \rightarrow 9$
 $10\% \rightarrow 18$
 $100\% \rightarrow 180$

Ans: 180

<p>Q28) $S : B : W$</p> <p>$\times 20$ $\left(\begin{array}{c} 3 : 1 \\ 60 : 20 : 20 \end{array} \right) \times 20$</p> <p>$S + W = 80\%$ $60\% \rightarrow 12$ $1\% \rightarrow 0.2$ $80\% \rightarrow 16$</p> <p style="text-align: right;">Ans: 16cm²</p>
<p>Q29) 4 lengths $\rightarrow 2u \times 4 = 8u$ 8 breadths/half-lengths $\rightarrow 1u \times 8 = 16u$ $16u \rightarrow 80$ $1u \rightarrow 5$ (breadth) $2u \rightarrow 10$ (length) Area of 1 rect = $10 \times 5 = 50$ Area of figure = $50 \times 4 = 200$</p> <p style="text-align: right;">Ans: 200cm²</p>
<p>Q30) $200 \div 10 = 20$ $7 - 3 = 4$ $20 \times 4 = 80$</p> <p style="text-align: right;">Ans: 80</p>

PAPER 2

<p>Q1) (a) $\frac{2}{10} \times 100\% = 20\%$</p> <p>(b) $2 + 5 + 8 + 10 = 25$ $2 + 5 = 7$</p> <p style="text-align: right;">Ans: (a) 20% (b) $\frac{7}{25}$</p>
<p>Q2) Vol of each cube = $1 \text{ cm} \times 1 \text{ cm} \times 1 \text{ cm} = 1 \text{ cm}^3$ No. of cubes = 18 $18 \times 1 = 18$</p> <p style="text-align: right;">Ans: 18 cm³</p>
<p>Q3) (a) $4 \div \frac{3}{4} = 5\frac{1}{3}$</p> <p>(b) $\frac{3}{4} \times 5 = 3.75$ $4 - 3.75 = 0.25$</p> <p style="text-align: right;">Ans: (a) 5 (b) 0.25 m</p>
<p>Q4) (a) $500 \times 0.7 = 350$</p> <p>(b) $150 \div 3 = 50$</p> <p style="text-align: right;">Ans : (a) 350 American dollars (b) 50 Singapore dollars</p>

Q11) $FDB = 60^\circ$ (equilateral Δ)
 $ADB = 45^\circ$ (half rt angle)
 $EDA = 60^\circ$ (equilateral Δ)
 $FDA = 60^\circ - 45^\circ = 15^\circ$
 $EDF = EDA - FDA$
 $= 60^\circ - 15^\circ =$
 $EGD = 180^\circ - 45^\circ - 60^\circ = 75^\circ$
 $EGF = 180^\circ - 75^\circ = 105^\circ$

Ans: (a) 75°
 (b) 105°

Q12) $100\% - 20\% = 80\%$
 $80\% \rightarrow \$160$
 $1\% \rightarrow \$2$
 $20\% \rightarrow \$40$
 $8 \text{ boxes} \rightarrow \40
 $1 \text{ box} \rightarrow \5

Ans: \$5

Q13) Before After



$2 \text{ units} \rightarrow \220
 $1 \text{ unit} \rightarrow \110
 $JW \rightarrow \$110 + \$20 + \$100 = \230
 $A \rightarrow \$110 + \$20 = \$130$
 $\text{Total} \rightarrow \$230 + \$130 = \360

Ans: \$360

Q14)

	20 cents	50 cents
Before	2 units	3 units
Change	+ 25	- 10
After	1 p	1 p

$2 \text{ units} + 25 = 3 \text{ units} - 10$
 $1 \text{ unit} \rightarrow 35$
 $2 \text{ units} \rightarrow 70$
 $3 \text{ units} \rightarrow 105$
 $70 \times 20 \text{¢} = \14
 $105 \times 50 \text{¢} = \52.50
 $\text{Total} \rightarrow \$52.50 + \$14 = \66.50

Ans: \$66.50

Q15) $1 - \frac{1}{4} = \frac{3}{4}$
 $3 \text{ units} \rightarrow 24$
 $1 \text{ unit} \rightarrow 8$

4 units \rightarrow 32
 $32 + 4 = 36$
 3 units \rightarrow 36
 1 unit \rightarrow 12
 4 units \rightarrow 48
 Total $\rightarrow 48 + 4 = 52$

Ans: 52 crystals

Q16) $500\ell - 20\ell = 480\ell$
 $50\% - 10\% = 40\%$
 $40\% \rightarrow 480\ell$
 $10\% \rightarrow 120\ell$
 $50\% \rightarrow 600\ell$
 Left $\rightarrow 600\ell - 20\ell = 580\ell$

Ans: 580 ℓ

Q17)

	Red	Blue
Before	1 unit + 1	6 units
Change	- 1	
After	1 unit	6 units

	Red	Blue
Before	1 p	4 p + 2
Change		- 2
After	1 p	4 p

$1\text{ p} \rightarrow 1\text{ unit} + 1$
 $4\text{ p} \rightarrow 4\text{ units} + 4$
 $6\text{ units} \rightarrow 4\text{ p} + 2 \rightarrow 4\text{ units} + 4 + 2 \rightarrow 4\text{ units} + 6$
 $2\text{ units} \rightarrow 6$
 $1\text{ unit} \rightarrow 3$
 Total $\rightarrow 1\text{ unit} + 1 + 6\text{ units} \rightarrow 7(3) + 1 = 22$

Ans: 22 balls

Q18) A : B : C
 $\times 2 \left(\begin{array}{l} 4 : 5 : 10 \\ 8 : 10 : 20 \end{array} \right)$

$\frac{3}{8} \times 8\text{ units} = 3\text{ units}$ (A overlaps B)

$\frac{1}{4} \times 20\text{ units} = 5\text{ units}$ (C overlaps B)

Total shaded parts $\rightarrow 3\text{ units} + 5\text{ units} = 8\text{ units}$

Total figure $\rightarrow (8 - 3) + 10 + (20 - 5) = 30\text{ units}$

Shaded fraction $\rightarrow \frac{8}{30} = \frac{4}{15}$

Ans: $\frac{4}{15}$