NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2019
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS 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. The use of calculators is **NOT** allowed.

Name : _____ ( )

Class : 6_____

Date : 16 May 2019 **Parent's Signature :**_____

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 and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

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1. Round 245 542 to the nearest thousand.

   (1) 245 000

   (2) 245 500

   (3) 246 000

   (4) 250 000

2. What is the value of $16 + (40 - 8) \div 4 \times 2$?

   (1) 6

   (2) 24

   (3) 32

   (4) 48

3. Which one of the following are common factors of 12 and 30?

   (1) 2 and 3

   (2) 2 and 5

   (3) 3 and 4

   (4) 4 and 6

4. Find $\frac{2}{7} \div \frac{5}{6}$

(1) $\frac{12}{35}$

(2) $\frac{5}{21}$

(3) $2\frac{11}{12}$

(4) $4\frac{1}{5}$

5. $\frac{3}{5} \times 12 = 3 \times \frac{3}{5} + \frac{3}{5} + \square \times \frac{3}{5}$

(1) 5

(2) 8

(3) 9

(4) 4

6. Simplify the following algebraic expression.

$14 + 6a + 2 - 5a$

(1) $16 + 11a$

(2) $16 + a$

(3) $12 + 11a$

(4) $12 + a$

7. Simon started his revision at 11.55 a.m. He revised for 1 h 50 min.
What time did Simon stop his revision?

(1) 1.05 a.m.

(2) 1.45 a.m.

(3) 1.05 p.m.

(4) 1.45 p.m.

8. The table below shows the number of coins saved by Natalie for 5 days.

Day	Number of coins saved	
	20-cent coins	50-cent coins
Monday	4	2
Tuesday	10	0
Wednesday	0	3
Thursday	5	5
Friday	8	1

On how many days was Natalie able to save at least $2?

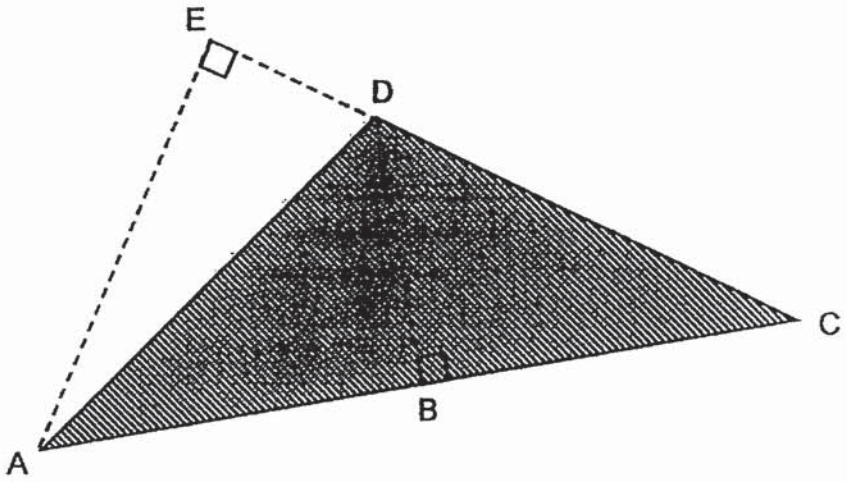
(1) 5

(2) 2

(3) 3

(4) 4

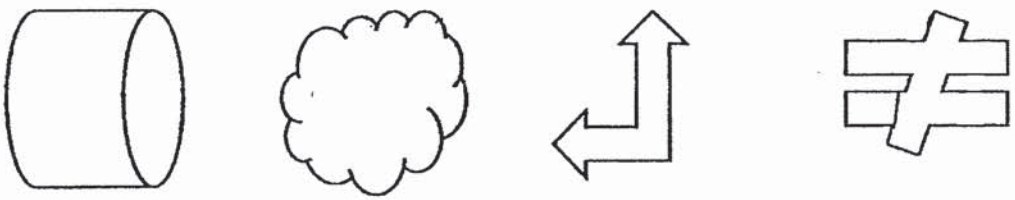
9.



From the figure above, which one of the following shows the correct base and height of triangle ACD?

	Base	Height
(1)	BD	AC
(2)	CD	AE
(3)	CE	AE
(4)	CD	BD

10. Which one of the following is a symmetric figure?



(1) (2) (3) (4)

11. What is the value of $21 + \frac{4y}{2}$ when $y = 6$?

(1) 22

(2) 24

(3) 26

(4) 33

12. At a carnival, the ratio of the number of adults to the number of children is 7 : 9. The number of boys is $\frac{1}{5}$ the number of girls. What is the ratio of the number of girls to the number of adults?

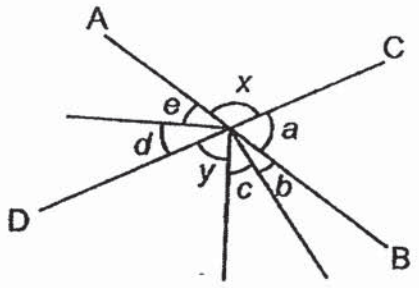
(1) 1 : 7

(2) 5 : 7

(3) 3 : 14

(4) 15 : 14

13. In the figure below not drawn to scale, AB and CD are straight lines. Find the difference between $\angle x$ and $\angle y$.



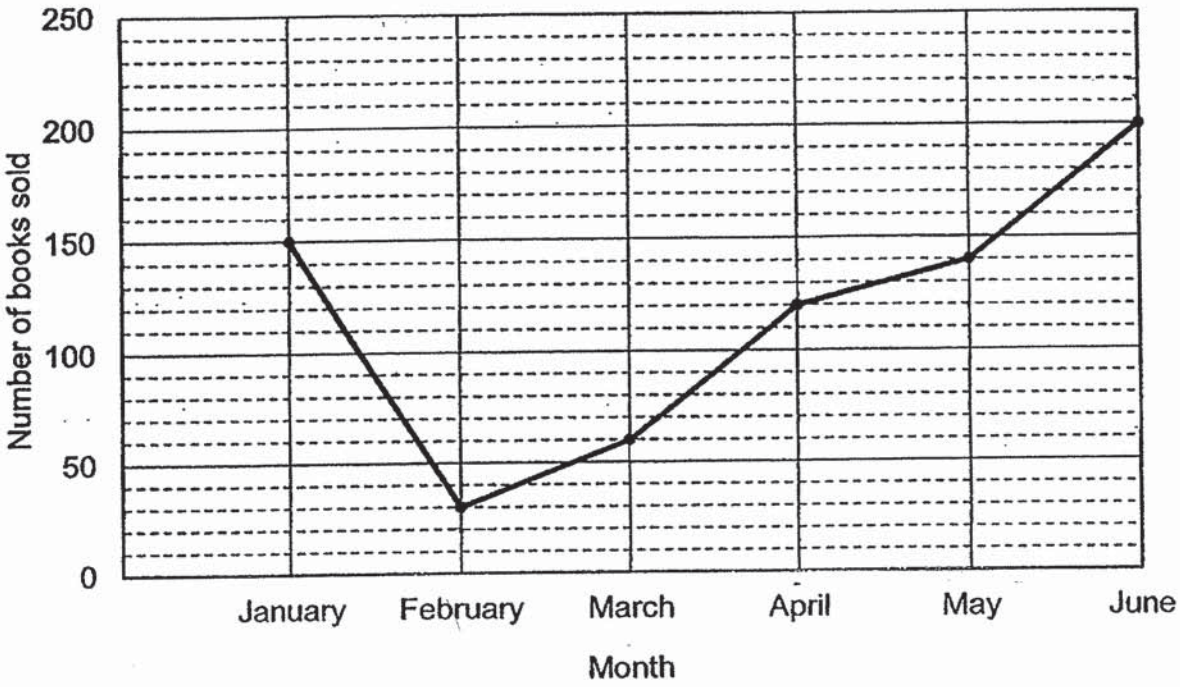
(1) $\angle a - \angle d$

(2) $\angle b + \angle c$

(3) $\angle d + \angle e$

(4) $\angle a - \angle e$

14. The line graph below shows the number of books sold by a shop from January to June in 2015.



What was the average number of books sold per month from February to April in 2015?

(1) 35

(2) 70

(3) 75

(4) 210

15. The table below shows the number of students in 6A. Some of the information is missing.

	With CCA	Without CCA	Total
Boys	10		
Girls	15		20
Total			36

Based on the given information, which of the following statements is correct?

(1) $\frac{1}{5}$ of the students with a CCA are boys.

(2) 25% of the girls are without any CCA.

(3) There are more girls than boys who are without any CCA.

(4) The ratio of the number of girls to the number of boys in 6A is 4 : 5.

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2019
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET B)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS 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. Write your answers in this booklet.
6. The use of calculators is **NOT** allowed.

Marks Obtained

Paper 1	**Booklet A**		**/ 45**
	Booklet B		
Paper 2			**/ 55**
Total			**/ 100**

Name : _____ ( )

Class : 6_____

Date : 16 May 2019 **Parent's Signature :**_____

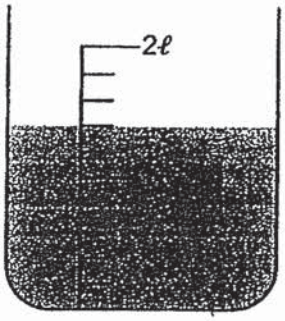
Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. **[5 marks]**

Do not write in this space

16. Find the value of $18 \div \frac{4}{5}$

Ans : _____

17. How much water is there in the beaker?



Ans : _____ mℓ

18. Write down the common multiple of 3 and 7 that is greater than 40 but smaller than 50.

Ans: _____

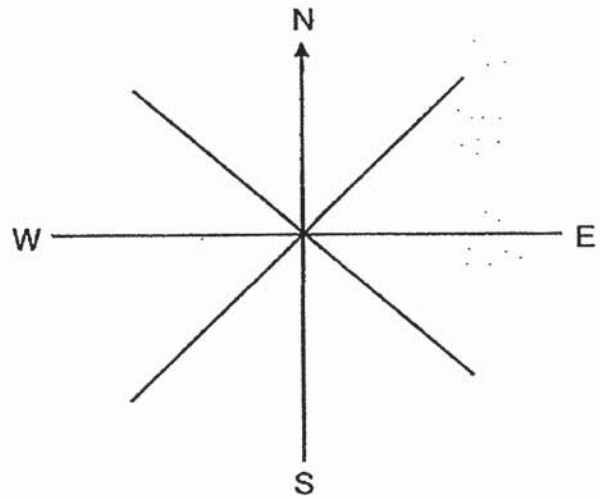
Subtotal	/ 3

Do not write in this space

19. 3 children shared $\frac{2}{3}$ of a pizza equally. What fraction of a pizza did each child get?

Ans : _____

20. Jimmy is facing west now. When he makes a $\frac{3}{4}$ – turn in a clockwise direction and another $\frac{1}{4}$ – turn in an anticlockwise direction, where will Jimmy be facing?



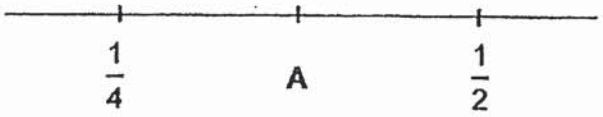
Ans : _____

Subtotal	/2

Questions **21** 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. [20 marks]

Do not write in this space

21. **A** is a fraction that lies exactly between $\frac{1}{4}$ and $\frac{1}{2}$. What is **A**?



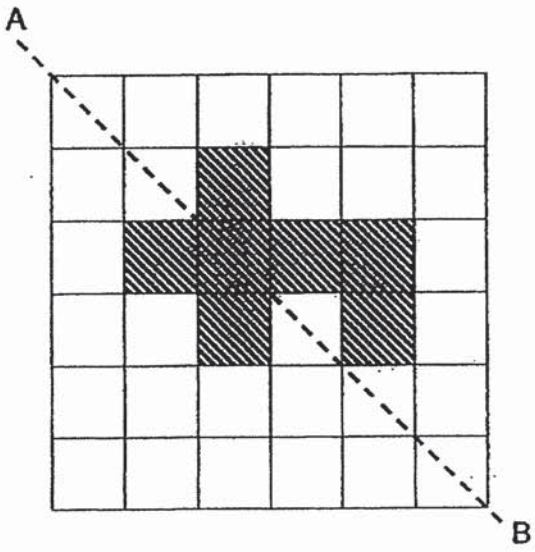
Ans : _____

22. Draw a triangle ABC such that AB = BC = 5 cm and ∠ ABC = 80°

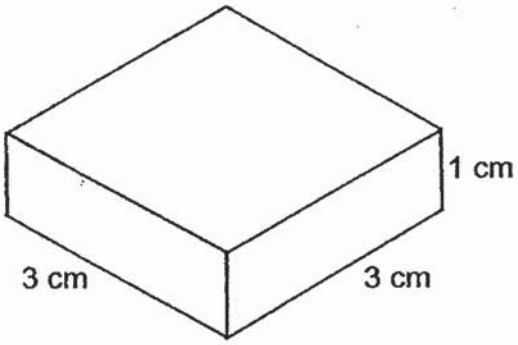
Subtotal	/ 4

23. There are 7 shaded squares in the figure. Shade 2 more squares to form a symmetric figure with AB as the line of symmetry.

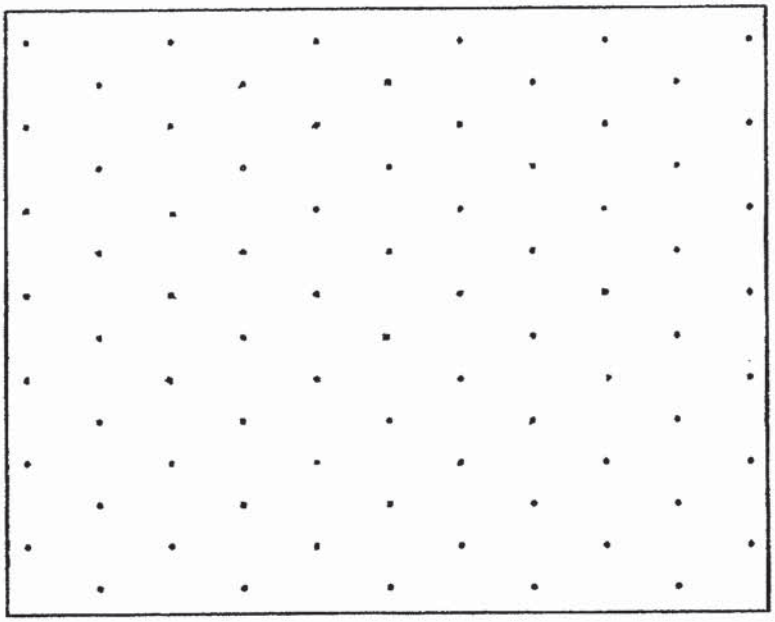
Do not write in this space



24. The figure below shows Cuboid A. Draw a cuboid with a volume twice that of Cuboid A on the isometric grids provided.



Cuboid A



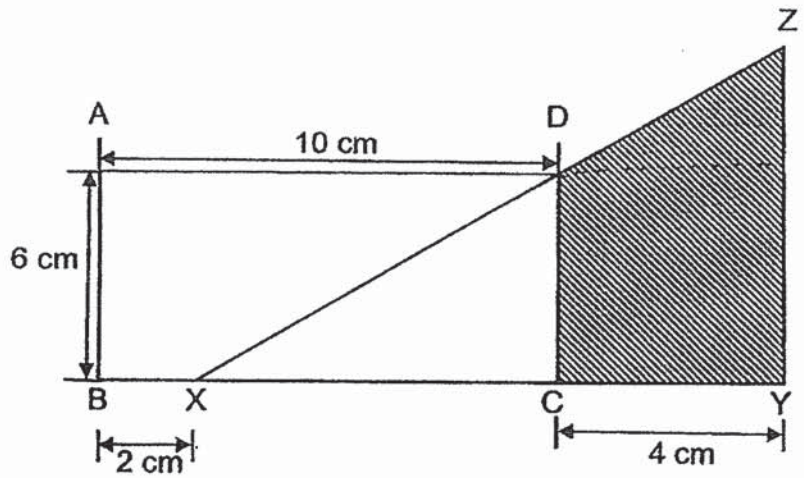
Subtotal	/ 4

25. Mdm Lim made $\frac{7}{8}$ ℓ of orange drink. She poured the orange drink into glasses of capacity $\frac{1}{5}$ ℓ each. All the glasses were completely filled except for 1 glass. How much orange drink was in the glass that was not completely filled?

Do not write in this space

Ans : _____ ℓ

26. In the figure below not drawn to scale, Rectangle ABCD has the same area as Triangle XYZ. Find the area of the shaded part.



Ans : _____ cm^2

Subtotal	/ 4

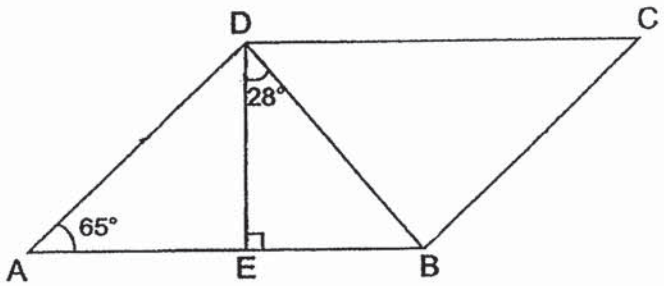
27. Madam Fatimah baked some cupcakes. After selling $\frac{1}{4}$ of the cupcakes, she packed the remaining cupcakes into 12 boxes. There were $4w$ cupcakes in each box. How many cupcakes did Madam Fatimah bake in all?

Do not write in this space

Ans : _____

28. The figure below is not drawn to scale.

ABCD is a parallelogram. $\angle BAD = 65°$ and $\angle BDE = 28°$. Find $\angle DBC$.



Ans: _____

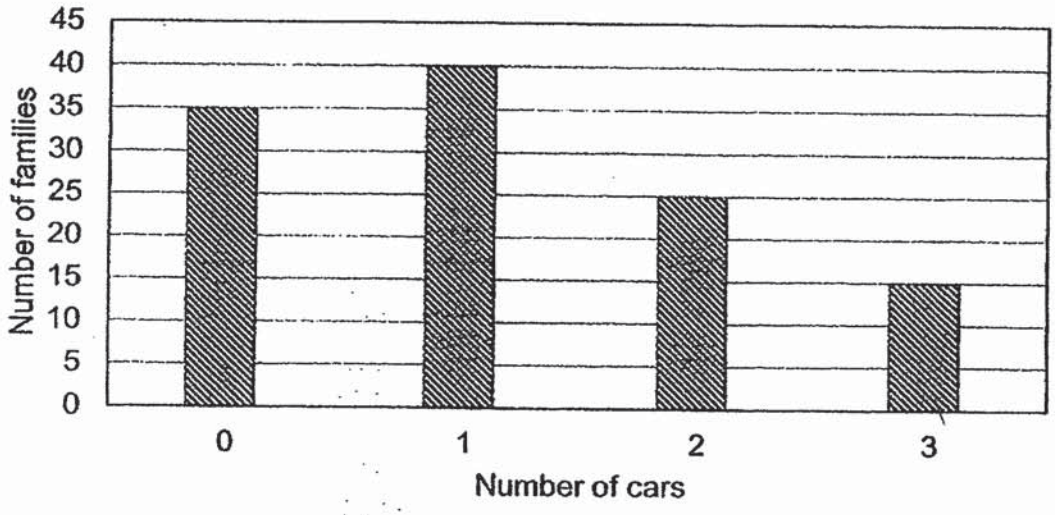
Subtotal	/4

29. Bowen has some 10-cent and 50-cent coins in his savings box. There are 3 fewer 50-cent coins than 10-cent coins in the box. The total value of the coins is $5.70. How many 10-cent coins does Bowen have?

Do not write in this space

Ans: _____ ten-cent coins

30. The bar graph shows the number of cars owned by families living in an estate.



Each of the statements below is either true, false or impossible to tell from the information given. For each statement, put a tick (√) to indicate your answer.

Statement	True	False	Not possible to tell
40 families own at least 2 cars.			
50% of the total number of cars are owned by families with only 1 car.			

END OF PAPER 1

Subtotal	/ 4

NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2019
PRIMARY 6

MATHEMATICS

Paper 2

Total Time for Paper 2: 1 hour 30 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 and show your workings clearly.
5. You are allowed to use a calculator.

Marks Obtained

Total		/ 55

Name : _____( )

Class : _____

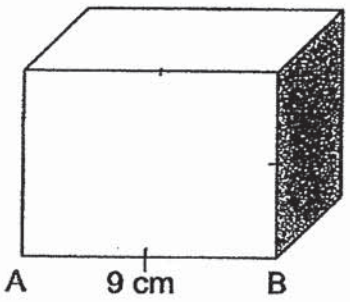
Date : 16 May 2019 **Parent's Signature :** _____

Paper 2 (55 marks)

Do not write in this space

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

1. The volume of the cuboid below is 216 cm^3. The length of AB is 9 cm. What is the area of the shaded face?



Ans: _____ cm^2

2. The ratio of Tom's money to Jerry's money was 1 : 5 at first. After spending \$25 each, they had a total of \$130 left. How much did Tom have at first?

Ans: \$_____

3. After joining the Active Kids Programme in school, Brendon's mass decreased by 5%. He is 57 kg now. What was his mass before joining the programme?

Do not write in this space

Ans: _____ kg

4. The table below shows the postage rates for delivering packages to Australia.

Mass step not over	Postage
100 g	$4.70
250 g	$9.85
500 g	$17.00
Every additional 100 g	$3.50

How much postage did Mr Lim pay to deliver a 550 g package to Australia?

Ans: $_____

5. The table shows the number of cupcakes a shop sold in 5 days.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Number of cupcakes	0	680	?	1050	900

The average number of cupcakes sold from Monday to Friday was 850. The shop was closed on Monday. How many cupcakes did the shop sell on Wednesday?

Ans: _____

Do not write in this space

For questions **6** to **17**, show your working clearly 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. (45 marks)

Do not write in this space

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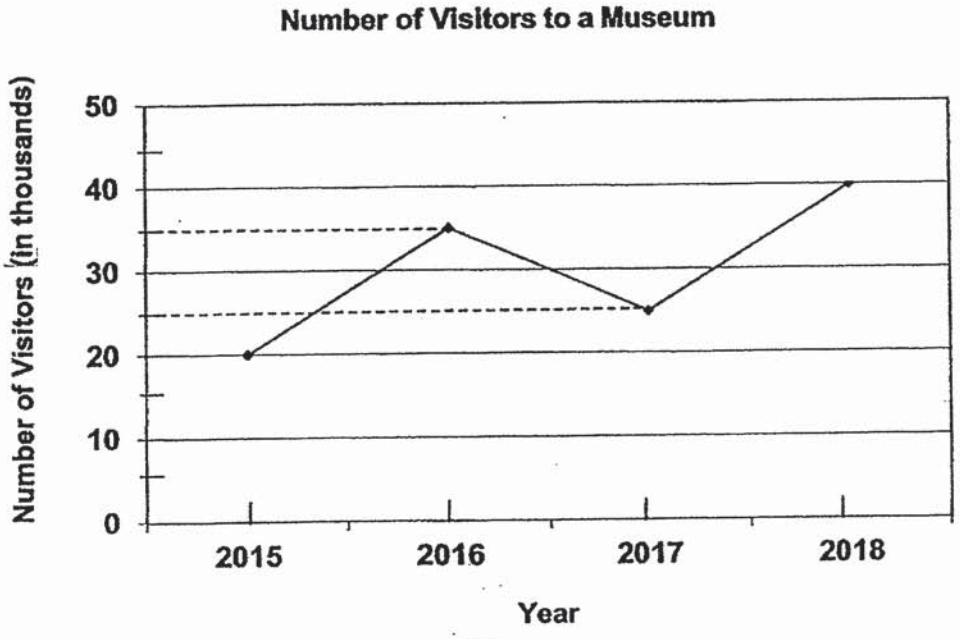
6. The line graph below shows the number of visitors to a museum from 2015 to 2018.



(a) What was the total number of visitors in the 4 years?

(b) What was the percentage increase in the number of visitors from 2017 to 2018?

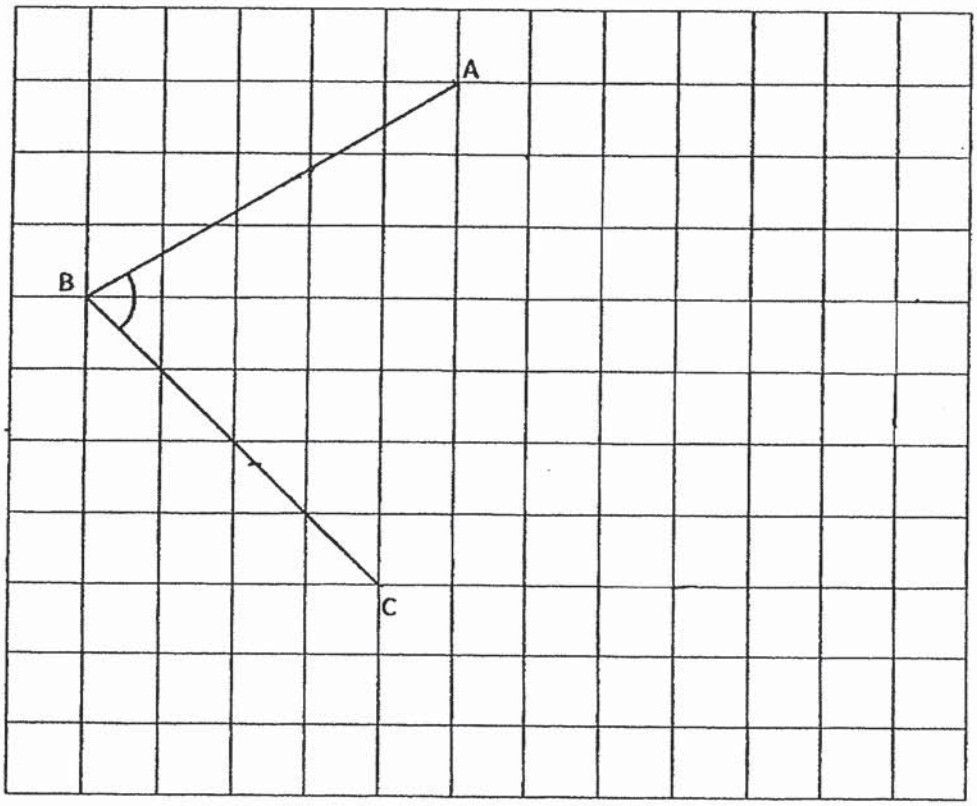
Ans: (a) _____ [1]

(b) _____ [2]

7. In the square grid, two sides of a parallelogram AB and BC have been drawn.

(a) Measure and write down the size of $\angle ABC$.

(b) Complete the drawing of the parallelogram ABCD. [2]

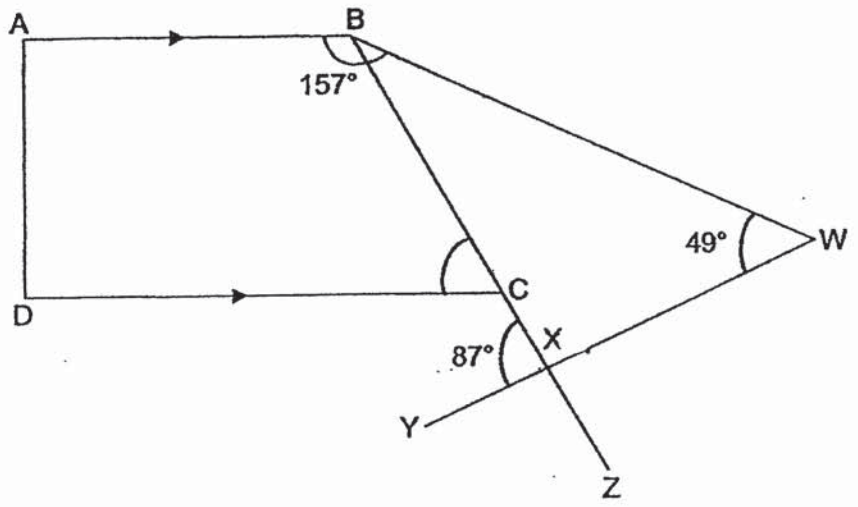


Ans: (a) _____[1]

Do not write in this space

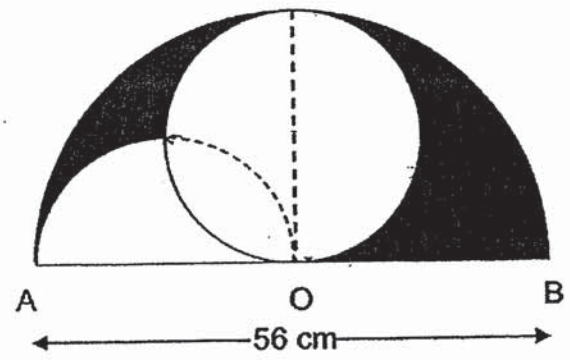
Do not write in this space

8. In the figure, not drawn to scale, AB is parallel to DC. AD, BW, BZ and WY are straight lines. $\angle ABW = 157°$. Find $\angle BCD$.



Ans: _____[3]

9. The figure is made up of a circle and 2 semi-circles. O is the centre of the large semi-circle and AB is 56 cm. Find the perimeter of the shaded parts. (Take $\pi = \frac{22}{7}$)



Ans: _____[4]

10. The table below shows the rates for printing class T-shirts at a printing shop.

Do not write in this space

Quantity	Charge
First 20 T-shirts	$13 each
Every additional T-shirt	$10.50

Amy went to the printing shop to print T-shirts for her classmates. She paid $428 altogether. How many T-shirts were printed?

Ans: _____ [3]

11. Winnie and Lulu shared a sum of money. At first, Winnie had $58. Then Lulu gave her $25. In the end, Lulu's amount of money was reduced by 10%.

(a) How much did Lulu have at first?
(b) Find the sum of money shared by the two girls.

Ans: (a) _____ [2]

(b) _____ [1]

12. Mr Ng bought 208 T-shirts and shorts altogether. He paid a total of $3050. Each T-shirt cost $14 and each pair of shorts cost $20.

(a) How many T-shirts did Mr Ng buy?

(b) How many pairs of shorts did Mr Ng buy?

Do not write in this space

Ans: (a) _____ [3]

(b) _____ [1]

13. Some children took a Mathematics test. Their average score was 78.1 marks. One of the children's scores was wrongly recorded as 79 marks instead of 97 marks. As a result, the average score was calculated as 76.3 marks. How many children sat for the test?

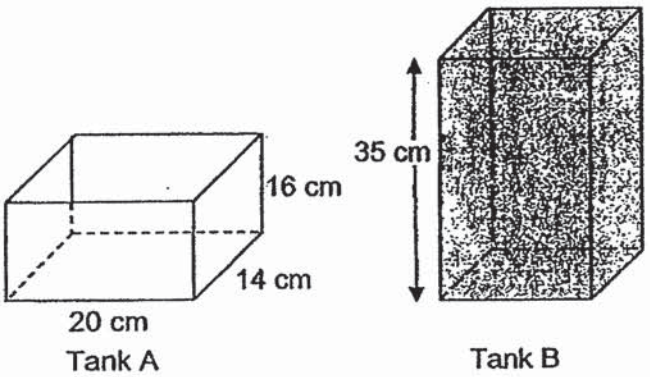
Do not write in this space

Ans: _____ [4]

14. Tank A which measured 20 cm by 14 cm by 16 cm was empty. Tank B with a base area of 200 cm² and a height of 35 cm was completely filled with water. The water from Tank B was then poured into Tank A to its brim.

(a) What was the volume of water in Tank B at first?

(b) What was the volume of water in Tank B in the end?



Ans: (a) _____[1]

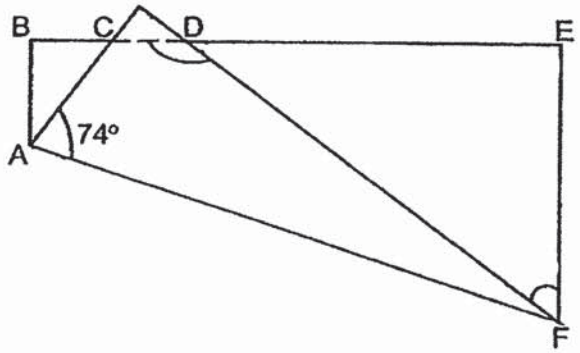
(b) _____[3]

Do not write in this space

15. In the figure below, a rectangular piece of paper is folded along AF as shown. BCDE is a straight line. Find

(a) $\angle$ DFE and

(b) $\angle$ BDF



Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

16. Dylan had three boxes, A, B and C, containing a total of 1512 stamps. The number of stamps in Box A is $\frac{2}{7}$ of the total number of stamps. Dylan sold 190 stamps from Box B and sold $\frac{1}{4}$ of the stamps in Box C.

The number of stamps left in Box B was twice the number of stamps left in Box C. How many stamps were there in Box B at first?

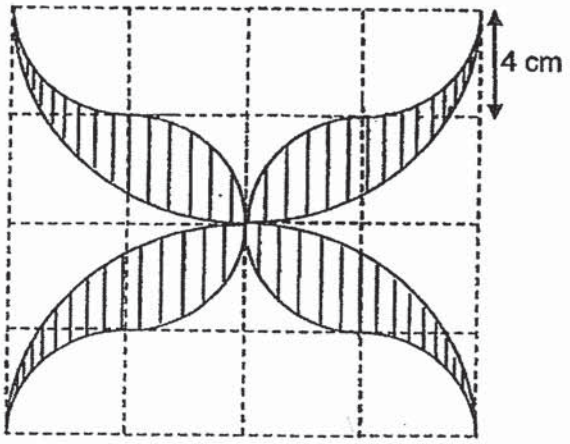
Do not write this space

Ans: _____ [5]

17. The figure below is made up of two big identical semicircles, 8 small identical quadrants and 16 squares. The side of each square is 4 cm. Find

(a) the radius of the big semicircles and
(b) the total area of the shaded parts

(Use π in the calculator and give your answers correct to 2 decimal places)



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Ans: (a)_____[1]

(b)_____[4]

End of Paper

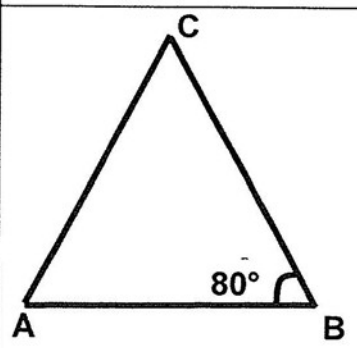
SCHOOL : NAN HUA PRIMARYSCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2019 SA1

PAPER 1 BOOKLET A

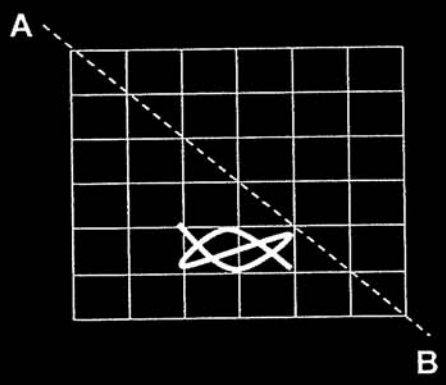
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	1	1	2	2	4	3	2	1

Q 11	Q12	Q13	Q14	Q15
4	4	2	2	2

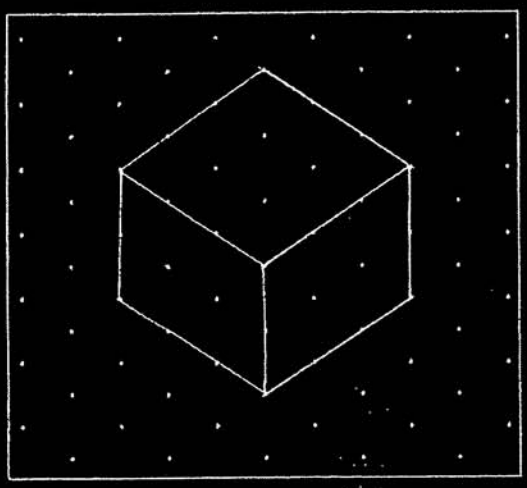
PAPER 1 BOOKLET B

Q16)	$\frac{18}{1} \times \frac{5}{4} = \frac{90}{4}$ $= 22\frac{2}{4} = 22\frac{1}{2}$
Q17)	$1.4\text{l} = 1400\text{ml}$
Q18)	21 x 2 = 42
Q19)	$\frac{2}{3} \div 3 = \frac{2}{3} \times \frac{1}{3} = \frac{2}{9}$
Q20)	East
Q21)	$\frac{1}{4} + \frac{1}{2} = \frac{3}{4}$ $\frac{3}{4} \div 2 = \frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$
Q22)	

Q23)



Q24)



Q25) $\frac{7}{8} \div \frac{1}{5} = \frac{7}{8} \div = \frac{5}{1} = \frac{35}{8} = 4\frac{3}{8}$

$= \frac{3}{8} \times \frac{1}{5} = \frac{3}{40} l$

Q26) 10cm x 6cm = 60cm²

10cm – 2cm = 8cm

$\frac{1}{2} \times$ 8cm x 6cm = 24cm²

60cm² – 24cm² = 36cm²

Q27) $1 - \frac{1}{4} = \frac{3}{4}$

4w x 12 = 48w

$\frac{3}{4}$ *of* the cupcakes = 48w

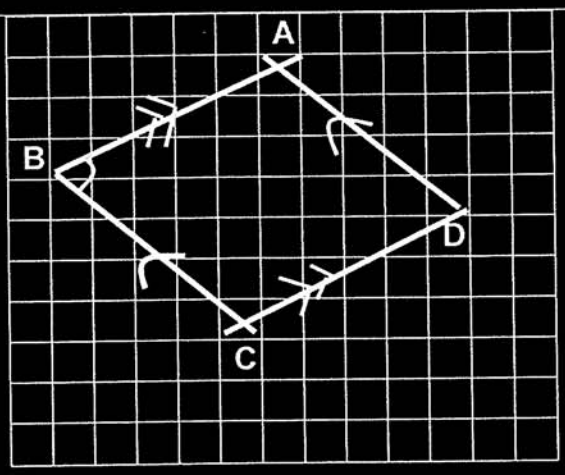
$\frac{1}{4}$ of the cupcakes = 48w ÷ 3 = 16w

16w x 4 =64w

Q28)	180° – 65° = 115° 180° – 90° – 65° = 25° 115° – 25° – 28° = 62° 180° – 62° – 65° = 53°
Q29)	10¢ x 3 = 30¢ $5.70 = 570¢ 570¢ - 30¢ = 540¢ 50¢ + 10¢ = 60¢ 540¢ ÷ 60¢ = 9 9 + 3 = 12 ten cents coins
Q30)	True False

PAPER 2

Q1)	? x ? x 9cm = 216cm^3 216cm^3 ÷ 9cm = 24cm^2
Q2)	$130 + $25 + 25 = $180 5u + 1u = 6u 6u = $180 1u = $180 ÷ 6 = $30
Q3)	100% - 5% = 95% 95% of his original mass→57kg $\frac{57kg}{95}$ x 100 = 60kg
Q4)	$17 + $3.50 = $20.50
Q5)	850 x 5 = 4250 4250 – 680 – 1050 – 900 = 1620
Q6)	a)120 x 1000 = 120000 b)40 – 25 = 15 $\frac{15}{25}$ x 100% = 60%
Q7)	a)75°

	b) 
Q8)	180°– 87° = 93° 180°– 93°– 49° = 38° 157°– 38° = 119° 180°– 119° = 61°
Q9)	56cm ÷ 2 = 28cm ½ x $\frac{22}{7}$ x 28cm = 44cm 44cm x 2 = 88cm ½ x $\frac{22}{7}$x 56cm = 88cm 88cm + 88cm + 28cm = 204cm
Q10)	$13 x 20 = $260 $428 – $260 = $168 $168 ÷ $10.50 = 16 16 + 20 = 36
Q11)	a)10% of LuLu's money = $25 $\frac{\$25}{10}$x 100 = $250 b)$58 + $250 = $308
Q12)	a)$20 x 208 = $4160 $4160 – $3050 = $1110 $20 – $14 = $6 $1110 ÷ 6 = $185 b)208 – 185 = 23
Q13)	78.1 – 76.3 = 1.8 97 – 79 = 18 1.8 average marks = 18 marks 18 ÷ 1.8 = 10

Q14)	a)$200cm^2 \times 35cm = 7000cm^3$ b)$20cm \times 14cm \times 16cm = 4480cm^3$ $7000cm^3 - 4480cm^3 = 2520cm^2$
Q15)	a)$180° - 74° - 90° = 16°$ $90° - 16° - 16° = 58°$ b)$180° - 90° - 58° = 32°$ $180° - 32° = 148°$
Q16)	<u>At first left</u> A : B + C : Total 2 : 5 : 7 (1080) (1512) $7u = 1512$ $1u = 1512 \div 7 = 216$ $5u - 216 \times 5 = 1080$ B : C 2 : 1x3 6 : 3 $6p + 190 + 4p = 1080$ $10p = 1080 - 190 = 890$ $1p = 890 \div 10 = 89$ $6p = 89 \times 6 = 534$ $534 + 190 = 724$
Q17)	a)$4cm \times 2 = 8cm$ b)$4cm \times 4cm = 16cm^2$ $16cm^2 \times 4 = 64cm^2$ $\frac{1}{2} \times \pi \times 8cm \times 8cm = 32\pi cm^2$ $2 \times (32\pi - 64)cm^2$ $= (64\pi - 128)cm^2$ $\approx 73.06cm^2$