

NAN HUA PRIMARY SCHOOL END-OF-YEAR EXAMINATION – 2021 PRIMARY 5

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 : 5		/	
Date: 28 October 2021	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 (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet (OAS). (20 marks)

1. Arrange the following fractions from the smallest to the largest:

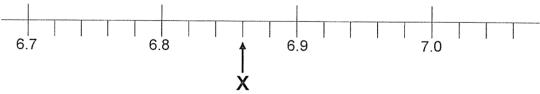
$$\frac{3}{2}$$
, $\frac{6}{5}$, $1\frac{1}{7}$

Smallest Largest

- 1 7 6 5 3 2 6 5

- (4)

2. Part of a scale is shown below. What is the value of the reading at X?



(

(

)

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- (1) 6.83
- (2) 6.86
- (3) 6.88
- (4) 7.10

- Find the value of $40 \div 4 \times (8-6)$. 3.
 - 5 (1)
 - (2) 20
 - (3) 36
 - (4) 74)

The diagram shows a calculator. 4. Which of the following could be the mass of this calculator?



- (1) 1 g
- (2) 10 g
- (3) 100 g
- (4) 1000 g

In a school, the ratio of the number of boys to the number of girls is 5:9. What 5. is the ratio of the number of girls to the total number of children in the school?

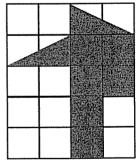
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)

- 5:9 (1)
- 5:14 (2)
- (3) 9:5
- (4) 9:14

)

6. A picture is drawn on a square grid.



What percentage of the square grid is shaded?

- 8% (1)
- (2) 16%
- 40% (3)
-) (4) 60%

7. The opening hours of a shop are shown below. How long does the shop open





9.15 a.m. to 6.30 p.m.



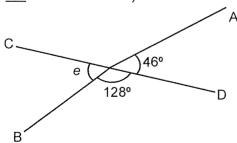
- (1) 3 h 15 min
- (2) 3 h 45 min
- (3) 9 h 15 min
- (4) 9 h 45 min

()

- 8. Express $\frac{3}{8}$ as a decimal.
 - (1) 0.125
 - (2) 0.375
 - (3) 0.625
 - (4) 0.875

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9. In the figure below, CD is a straight line. Find $\angle e$. (The figure is <u>not</u> drawn to scale.)



- (1) 46°
- (2) 52°
- (3) 58°
- (4) 134°

()

10.

Electric scooter for Rent

First hour:

\$12

Every additional $\frac{1}{2}$ hour:

\$4



Miss Lim rented a scooter for 3 hours. How much did she pay?

- (1) \$16
- (2) \$20
- (3) \$24
- (4) \$28

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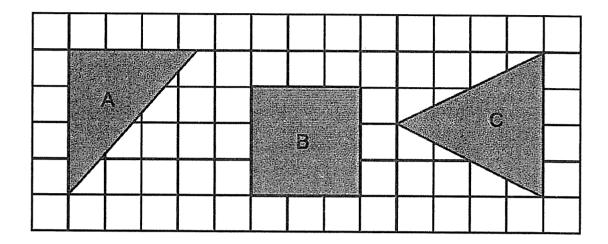
Highlighters are only sold in packets of 6. Each packet is sold at \$9.Mrs Tan has \$50. How many highlighters can she buy at most?



- (1) 30
- (2) 33
- (3) 35
- (4) 36

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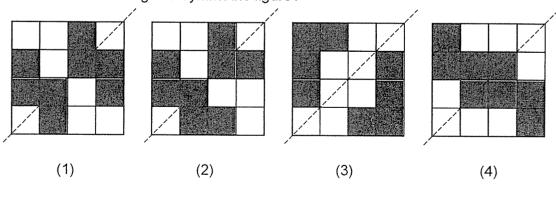
12. In the square grid below, A is a right-angled triangle, B is a square and C is another triangle. Arrange A, B and C from the largest to the smallest area.



	Largest		<u>Smallest</u>
(1)	Α,	В,	С
(2)	Α,	C,	В
(3)	B,	C,	Α
(4)	C,	Α,	В

- 13. Each figure below is made up of 16 squares.
 - 8 squares in each figure are shaded.

Which of the following is a symmetric figure?



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14. The table below shows the number of students in a Primary 5 class. Some of the information is missing.

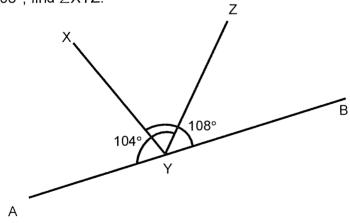
	With CCA	Without CCA	Total
Boys	10		
Girls	15		20
Total	25	11	36

Based on the given information, what is the ratio of the number of girls without CCA to the number of boys without CCA in the Primary 5 class?

- (1) 5:6
- (2) 6:5
- (3) 5:11
- (4) 6:11

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15. In the figure below, AYB is a straight line. Given that \angle AYZ = 104° and \angle XYB = 108°, find \angle XYZ.



- (1) 76°
- (2) 72°
- (3) 32°
- (4) 4°

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NAN HUA PRIMARY SCHOOL END-OF-YEAR EXAMINATION – 2021 PRIMARY 5

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	7 45
Paper 2		/ 55
Total		/ 100

Name :		()
Class : 5			
Date : 28 October 2021	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. Express 1005 grams in kilograms.

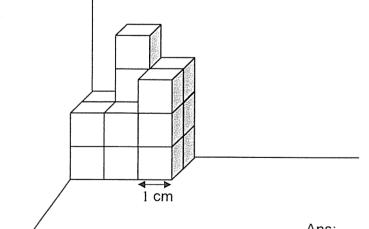
Ans: _____ kg

17. What is the missing number in the box?

$$\frac{8}{12} = \frac{\square}{9}$$

Ans: _____

18. The solid figure below is made up of unit cubes. What is the volume of the solid figure?



ns:	unit	cubes

_	 	
1		
1		
1		
1		
1		

Subtotal	/ 3

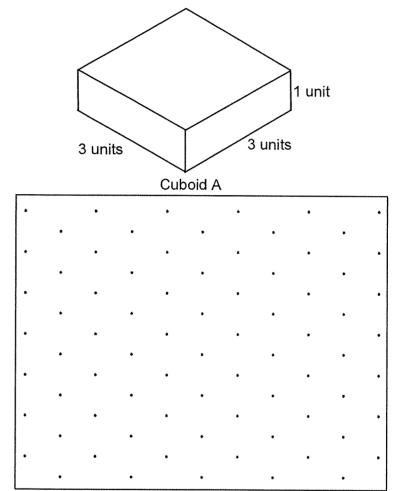
19.	Find the value	of 2.3 × 200.					Do not write in this space
				Ans:		and a second	
20.	The table belo	w shows Caili	's scores for 4	games she p	olayed.		
	Game	1	2	3	4		
	Score	5	0	9	10		
	Find the avera	ige score for t	he 4 games sh	ne played.			
				A no:			

Subtotal

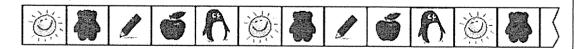
Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

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



22. Sally bought a roll of stickers with pictures as shown in the following sequence. The roll of stickers has 249 stickers. How many of her stickers have the picture of an apple, ?



^	
Ans:	<u> </u>

Subtotal

14

23. (a) Find the value of $\frac{3}{4} - \frac{2}{5}$.

Do not write in this space

Give your answer in the simplest form.

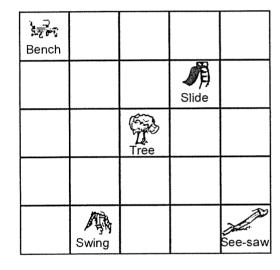
(b) Find the value of $\frac{9}{10} \times \frac{2}{3}$.

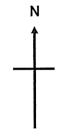
Give your answer in the simplest form.

Ans: (a)	

	- 1	
(h)	l.	
(6)	 - 1	L

24. The square grid below shows the plan of a playground in a school.





- (a) Which object is North-East of the Tree?
- (b) Which direction is the Swing from the See-saw?

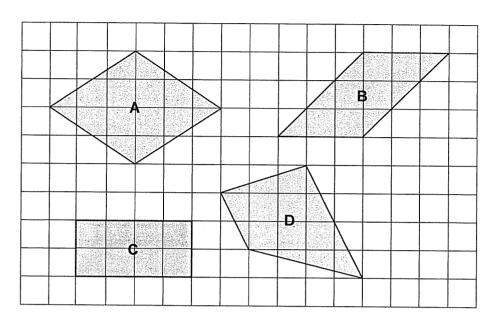
Ans: (a) _____

(b)

Subtotal	14
Subtotal	, 4

25. Four figures, A, B, C and D are drawn on a square grid.

Do not write in this space



Which 2 figures have more than one line of symmetry?

Ans: Figures	&	

- 26. (a) Express 5% as a decimal.
 - (b) Express 12 minutes as a percentage of 1 hour.

Ans: (a) _____

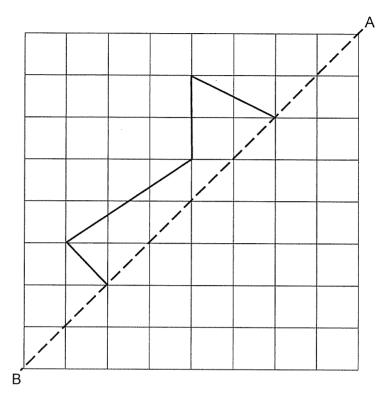
(b) ______%

ubtotal	/4	

\$10 she saved. How much did Faith's mother give	to give her \$2 her?	2 for every	Do not vin this s
An	s: \$		
The table below shows the rate of parking charges	s in a carpark.		
Parking Charges			
First hour	\$1.30		
Every subsequent 30 minutes or part thereof	\$0.80		
Daniel parked his car in the carpark from 3 p.m. to How much did he pay?	5.20 p.m.		
^	ne: \$		
Ar	ns: \$		
Ar	ns: \$		

29. Complete the figure below such that line AB is the line of symmetry.

Do not write in this space



30. Some teachers and students from Glory Childcare Centre went on a field trip. There were 12 teachers in each group of 20 students.

There were 48 more students than teachers.

How many students went on the field trip?

Ans: _____

--- End of Paper 1 ---

Subtotal

14





NAN HUA PRIMARY SCHOOL END-OF-YEAR EXAMINATION – 2021 PRIMARY 5

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.
- 5. Write your answers in this booklet.
- 6. The use of an approved calculator is expected, where appropriate.

Marks Obtained

Total	Max Mark
	55

Name :)
Class : 5		
Date : 28 October 2021	Parent's Signature :	



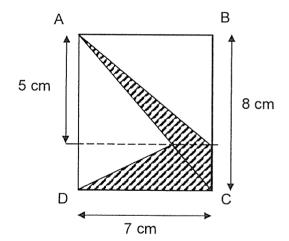
Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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1. In an aquarium, there were 1080 goldfish and guppies. The ratio of the number of guppies to the number of goldfish was 5 : 4. How many goldfish were left after 30 goldfish were sold?

Ans: ____

2. ABCD is a rectangle. Find the area of the shaded part.

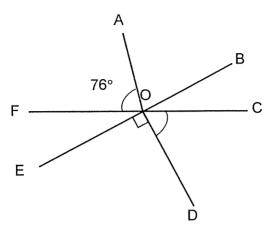


Ans: _____ cm²

Subtotal

3. In the figure below, not drawn to scale, BE and CF are straight lines. $\angle AOF = \angle AOB$. Find $\angle COD$.

Do not write in this space



Ans: ______

4. Glenda bought some flowers for her teachers on Teachers' Day. If she gave each teacher 4 flowers, there were 3 flowers left over. If she gave each teacher 6 flowers, she would be short of 1 flower. What was the smallest possible number of flowers that Glenda had?

Ans: _____

Subtotal

14

5. Mr Faizal cycles $7\frac{2}{5}$ km at a nearby park connector every weekend. His wife cycles 4 km less than him. What is the total distance that both of them cover together?

Do not write in this space

Ans:	ŀ	κm

Subtotal

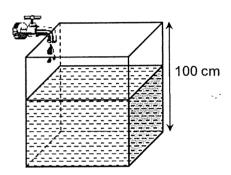
l 2

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 (45 marks) end of each question or part-question.

- The figure below shows a cubical tank which is $\frac{3}{5}$ -filled with water. 6.
 - (a) What is the volume of water needed to fill up the tank to the brim?
 - (b) Water is added to the tank at a rate of 4 litres per minute. At this rate, how long will it take to fill the tank completely?



Ans: (a)_		2]	
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Subtotal / 3 7. The usual price of a toaster was \$260. During a sale, a discount of 10% was given.

Do not write in this space

- (a) How much was the discounted price?
- (b) Mr Tan bought the toaster during the sale. However, he also had to pay a GST of 7% on the discounted price. How much did he pay for the toaster?

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

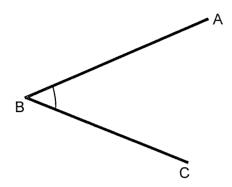
8. The table below shows the charges for water usage.

Volume of water	Charge
First 40 m ³	\$1.17 per m³
Above 40 m ³	\$1.40 per m ³

Mrs Lee's family used $66 \, \text{m}^3$ of water in September. How much did her family pay for the water used?

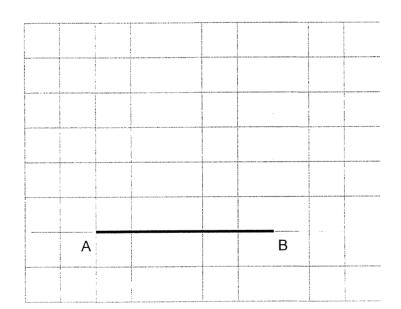
Ans:	Processor Control of the Control of].	3]
------	---	----	---	---

9. (a) In the space below, AB and BC are straight lines. Measure ∠ABC.



Ans: (a) _____[1]

(b) On the square grid below, AB is a straight line. Draw a square ABCD. [2]



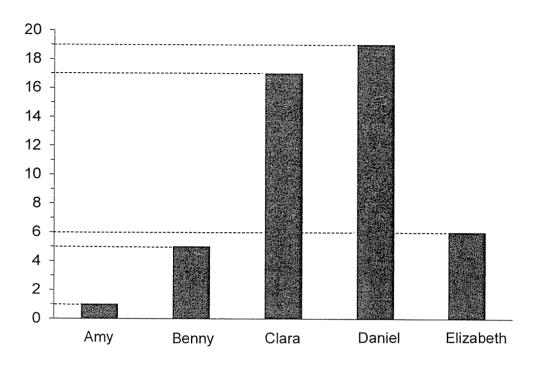
Subtotal / 3

10.	The average mass of 3 children, Xavier, Jeremy and Zen, is 54 kg. Xavie 60 kg. Jeremy and Zen are of the same mass. How heavy is Zen?	ris	Do not write in this space
	To high defently and zero are of the earne made. How heavy to zero:		
	Ans:[3]	
11.	Alex had twice as many marbles as Benjamin at first. Alex then gave away 33 marbles to another friend. Alex now has 16 more marbles than Benjamin.		
	(a) How many marbles does Alex have now?(b) How many marbles did Alex and Benjamin have at first?		
	Ans: (a)[2]	
	(p)[2]	
	Sub	total	/7

also put in a \$1 coin in the box every 7 days. The total value of the coins after 98 days was \$82.30. (a) How many coins were there altogether?	
(b) How many of the coins were 50¢ coins?	

13. The graph below shows the number of stickers bought by 5 children.

Do not write in this space



- (a) What is the total number of stickers bought by the 5 children?
- (b) What percentage of all the stickers are bought by Elizabeth?

14. Auntie Lucy baked 128 pies and some cookies. She gave away $\frac{3}{8}$ of her pies and $\frac{2}{7}$ of her cookies. She had 155 cookies left.

Do not write in this space

- (a) How many pies did she give away?
- (b) How many cookies did she give away?

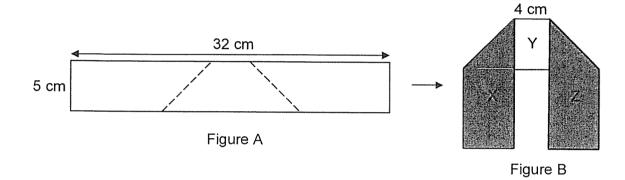
Ans: (a)_____[2]

(b)____[2]

15. Figure A shows a rectangular piece of paper 32 cm by 5 cm which is coloured on one side. It is folded along the dotted line to form Figure B.

Do not write in this space

- (a) Find the area of the rectangular piece of paper.
- (b) Find the total area of X, Y and Z in Figure B.



Ans: (a)_____[1] (b)____[3]

16. The first four figures of a pattern are shown below.



Figure 1



Figure 2

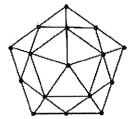


Figure 3

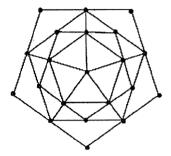


Figure 4

The table shows the number of dots and the number of non-overlapping triangles for each figure.

Figure number	Number of dots	Number of non- overlapping triangles
1	6	5
2	11	10
3	16	20
4	21	25
5	(i)	(ii)

- (a) Fil in the table for Figure 5.
- (b) What is the number of dots in Figure 10?
- (c) In which Figure number will there be 106 dots?

Ans: (a) (i)	[1	1]
(ii)	[1	1]
(b)	`]	1]
(c)	1.2	2 1

17.	There were 38 pupils in a class. Each of them contributed \$10 towards a	Do not write in this space
	charity drive. The form teacher contributed \$70.	une opace
	$\frac{2}{5}$ of the total amount contributed was spent on buying food items.	
	$\frac{1}{9}$ of the remainder was spent on stationery.	
	After spending some money on toiletries, there was \$93 left.	
	(a) What was the total amount contributed?	
	(b) How much was spent on toiletries?	
,		
	A = /.\	
	Ans: (a)[2]	
	/b\	
	(b)[3]	
	Find of Dame 0	

--- End of Paper 2 ---



Nan Hua Primary School 2021 P5 Math Answer

Paper 1

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

16)	1.005 kg	(17) 6
18)	16	(19) 460
20)	6	(21)
22)	249 ÷ 5 = 49R4 49 + 1 = <u>50</u>	23(a) $\frac{3}{4} - \frac{2}{5} = \frac{15}{20} - \frac{8}{20} = \frac{7}{20}$ (b) $\frac{9}{10} \times \frac{2}{3} = \frac{3}{5}$
24)	(a) Slide (b) West	(25) Figures <u>A & C</u>
26)	(a) $5\% = \underline{0.05}$ (b) $\frac{12}{60} \times 100\% = \underline{20\%}$	(27) 240 ÷ 10 = 24 24 x \$2 = <u>\$48</u>
28)	1.5 h ÷ 30 min = 3 3 x \$0.80 = \$2.40 \$2.40 + \$1.30 = \$3.70	
29)	B	(30) Number of more students than teachers in each set = 20 - 12 = 8 Number of sets = 48 ÷ 8 = 6 6 × 20 = 120 students went on the field trip. Or T: S: Difference = 12 : 20 : 8 = 72 : 120 : 48

Paper 2

1.	Before
	Gu : Go
	= 5 : 4
	9 units = 1080
	1 unit = 1080 ÷ 9 = 120
	4 units = 4 x 120 = 480
	480-30 <u>=450</u>

2.	8 – 5 = 3						
۷.							
	$\frac{1}{2} \times 7 \times 3 = 10.5$						
	Shaded area = 10.5 x 2 = <u>21 cm²</u> or 7x3 = 21						
3.	∠BOC=∠EOF = 180 ° - 76 ° - 76 °= 28 ° (sum of angles on a straight line and vertically						
	opposite angles are equal)						
	∠COD = 90 ° - 28 ° = <u>62 °</u>						
4.	Multiples of 4 + 3: 7, <u>11</u> ,15,19,23 Multiples of 6 – 1: 5, <u>11</u> ,17,23 Or						
	No of teachers = (excess + shortage) ÷ Difference = $(3 + 1) \div (6 - 4) = 2$ $(2x4) + 3 = 11$						
5.	(2x4) + 3 = 11 $2 \times 7\frac{2}{5} \text{ km} = 14\frac{4}{5} \text{ km}$ Or $7\frac{2}{5} \text{ km} - 4 \text{ km} = 3\frac{2}{5} \text{ km}$						
	$14 \frac{4}{5} \text{ km} - 4 \text{ km} = 10 \frac{4}{5} \text{ km}$ $3 \frac{2}{5} \text{ km} + 7 \frac{2}{5} \text{ km} = 10 \frac{4}{5} \text{ km}$						
6.	(a) Volume = $\frac{2}{5} \times 100 \times 100 \times 100 = \frac{400000 \text{ cm}^3 / 400 \text{ litres}}{100 \times 100 \times 100}$						
	Or Volume = $100 \times 100 \times 100 - \frac{3}{5} \times 100 \times 100 \times 100$						
	= <u>400000 cm³ / 400 litres</u>						
	(b) Time = $400 \div 4 = 100 \text{ minutes}$ or $1h \ 40 \text{min}$						
7.	a) \$260 ÷ 100 x 90 = \$234						
	b) \$234 ÷100 x 107 = \$250.38						
8.	\$1.17 x 40 = \$46.80						
	$$1.40 \times 26 = 36.40						
	\$36.40 + \$46.80 = \$83.20						
9.	(a) 45						
	(b) C						
10.	$54 \times 3 = 162$ 162 - 60 = 102 Zen's mass is $102 \div 2 = 51$ kg						
11.	Alex 1u 16 33 Benjamin 1u 1u						
	(a)1u \rightarrow 16+33 = 49 1u Alex's marbles : 49 + 16 = <u>65</u>						

	T				
	Or (a)				
	A	В			
	2u	1u			
ŀ	-33				
	2u-33	1u			
	2u-33→ 1u+	16			
	1u = 49				
	2u-33→ 49 x	2 – 33			
	Alex's marble	s: 98 – 33 = 65			
	$(b)3u = 3 \times 49$	9 = 147			
12.	(a) No. of 20¢	and 50¢ coins = 2x	98=196		
	98 ÷ 7 = 14	,			
	Total no. or	f coins = 196 + 14 =	210		
	(b) \$82.30 - \$	14 = \$68.30			
	Assume all ar	e 20¢ coins.			
	196 x \$0.20 =	\$39.20			
	\$68.30-\$39.2	0 = \$29.10			
	\$0.50 - \$0.20				
	\$29.10 ÷ \$0.3	s0 = 97			
	Or	-			
	Assume all ar	e 50¢ coins.			
	196 x \$0.50 =				
	\$98 - \$68.30	= \$29.70			
-	\$29.70 ÷ \$0.3				
	196 – 99 = 97				
	Or				
ĺ	\$68.30 ÷ \$0.7	0 = 97R \$0.40			
	ì	= 2 more 20¢ coins			
		and 99 20¢ coins.			
	Or				
	No. of 20¢	No. of 50¢	Total cost	Check	
	98	98	98x\$0.20 + 98x\$0.50 = \$68.60	X	
	99	97	99x\$0.20 + 97x\$0.50 = \$68.30	1	
				· · · · · · · · · · · · · · · · · · ·	
	M1 for arrivin	g at correct answer	A1 for <u>97</u> 50¢ coins		
	in to an time	g at correct arrower,	The state of the s		
13.	(a)1 + 5 + 17	+ 19 + 6 = 48			
	(2).	<u> 10</u>			
	The 5 friends bought 48 stickers in total.				
	6	6			
	(b) $\frac{6}{48} \times 100\% = \underline{12.5\%}$				
	l _				
	Or 1000%				
	100% →48				
	1% →0.48				
<u> </u>	6÷0.48 → 12.5%				
14.	$\binom{3}{2} \times 128 = 48$				
	(a) $\frac{3}{8} \times 128 = 48$				
	Or				
	8 uni	ts = 128			
	3 units = 128 ÷ 8 x 3 = 48				
		-	-		
	$\frac{(b) 1 - 2}{}$	= 5			
	(b) $1 - \frac{2}{7} = \frac{5}{7}$				
	5 units = 155				
	1 unit = $155 \div 5 = 31$				
		= 155 ÷ 5 = 31 = 31 x 2 = <u>62</u>			

15. (a) 32 × 5 = 160 Area of rectangular piece of paper = 160 cm² (b) Method 1 $5 \times 5 = 25$ Area of resulted figure = $160 - 25 = 135 \text{ cm}^2$ Method 2 $(32-5-5-4) \div 2$ 9 × 5 × 2 = 90 32 - 5 - 5 - 4 = 18 $18 \times 5 = 90$ $5 \times 5 = 25$ $\times 5 \times 5 \times 2 = 25$ 2 $4 \times 5 = 20$ $4 \times 5 = 20$ Area of resulted figure = $90 + 25 + 20 = 135 \text{ cm}^2$ 16. (a) (i) 26 (ii) 35 (b) $5n + 1 = 5 \times 10 + 1 = 51$ Or by listing to get 51 (c) 5n + 1 = 106 $n = (106 - 1) \div 5 = 21$ Or by listing to get Figure no. 21 (a) $38 \times \$10 + \$70 = \$450$ x(\$450-\$180) = \$30<u>Or</u> $\frac{7}{15}$ x \$405 = \$210 $4 \text{ units} = $450 \div 15 \times 4 = 180 1 unit = $$450 \div 15 = 30 (180 + 30 + 93) = \$303Or \$210 + \$93 = \$303 \$450 - \$303 = \$147 $8 \text{ units} = ($450 \div 15) \times 8$ $= $30 \times 8 = 240 \$240 - \$93 = **\$147**

END