Founded 1947

南侨小学

NAN CHIAU PRIMARY SCHOOL
MID YEAR EXAMINATION
2022
MATHEMATICS PAPER 1
PRIMARY 6
BOOKLET A

Name / Index #	)	
Class	**Primary 6**_____	
Date	**17 May 2022**	
Duration for Booklets A and B	**1h**	
Marks	**Paper 1 Booklet A**	**20**
	Paper 1 Booklet B	**25**
	Paper 2	**55**
	Total	**100**
Parent's Signature		

Instructions to students	1.	Do NOT open this booklet 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 provided.
	5.	The use of calculators is **NOT** allowed.

This paper consists of 6 pages altogether.

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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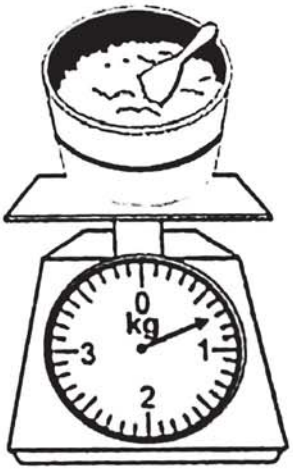
1 Which of the following is the first common multiple of 6 and 9?

(1) 15
(2) 18
(3) 3
(4) 54

2 In the number 410.582, which digit is in the hundredths place?

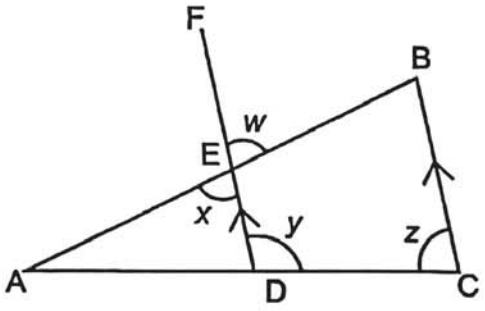
(1) 5
(2) 2
(3) 8
(4) 4

3 The figure shows a container of rice.
How much **more** rice needs to be added to make it 1 kg?



(1) 0.3 kg
(2) 0.7 kg
(3) 30 g
(4) 70 g

4 In the figure below, ABC is a triangle. BC is parallel to FD.
Which of the following statements is true?



(1) $\angle w + \angle x = 180°$

(2) $\angle w + \angle z = 180°$

(3) $\angle x + \angle y = 180°$

(4) $\angle y + \angle z = 180°$

5 Which of these fractions is closest to $\frac{1}{2}$?

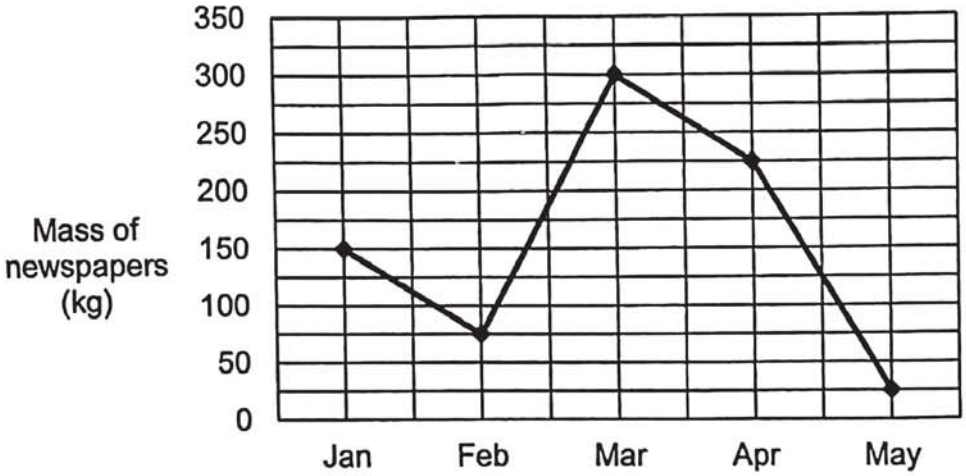
(1) $\frac{3}{5}$

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

(3) $\frac{5}{9}$

(4) $\frac{6}{11}$

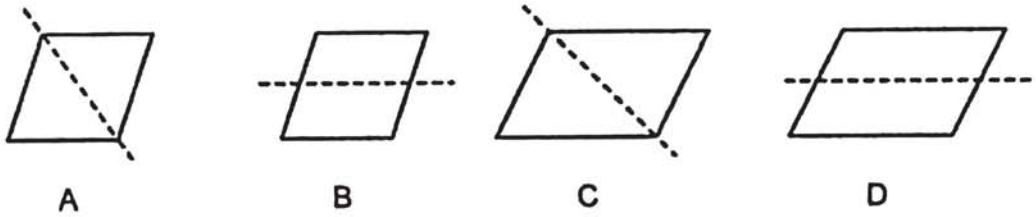
6 The graph below shows the mass of newspapers the Primary 6 classes had collected over 5 months.



In which month was the mass of newspapers collected thrice that of Feb?

(1) Jan
(2) Mar
(3) Apr
(4) May

7 Figures A and B are rhombuses while Figures C and D are parallelograms. Which of the following shows that the dotted line drawn is a line of symmetry of the figure?



(1) A only
(2) A and C
(3) B and D
(4) A, B, C and D

8 Arrange the following decimals from the smallest to the greatest.

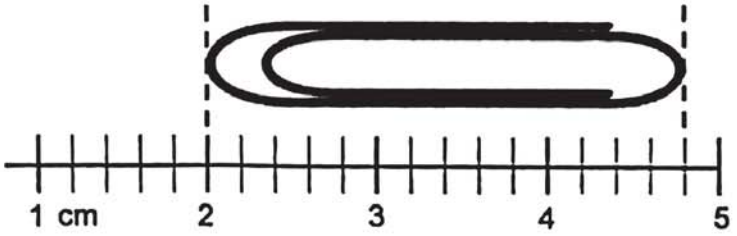
4.5, 0.45, 4.05, 0.54

	(smallest)			(greatest)
(1)	0.45	4.5	4.05	0.54
(2)	0.45	0.54	4.05	4.5
(3)	0.54	0.45	4.05	4.5
(4)	0.54 ,	0.45 ,	4.5 ,	4.05

9 Daniel started driving at 19 45. He arrived at Jurong 1 h 20 min later. At what time did he reach Jurong?

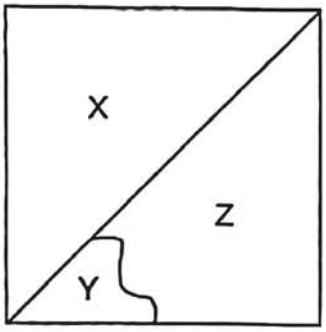
(1) 6.25 a.m.
(2) 6.25 p.m.
(3) 9.05 a.m.
(4) 9.05 p.m.

10 What is the length of the paper clip?



(1) 2.0 cm
(2) 2.4 cm
(3) 2.8 cm
(4) 4.8 cm

11 A square is divided into 3 parts, X, Y and Z. The ratio of the area of Y to the area of Z is 1 : 6. The area of Z is 126 cm². Find the area of X.



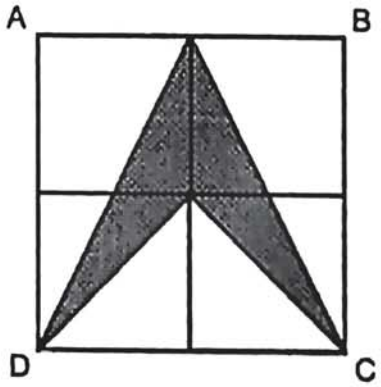
(1) 21 cm²

(2) 108 cm²

(3) 147 cm²

(4) 252 cm²

12 Square ABCD is made up of 4 smaller identical squares.
What fraction of the square ABCD is shaded?



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

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

(3) $\frac{1}{8}$

(4) $\frac{1}{16}$

13 Kelly and Lucas saved \$800 altogether. $\frac{1}{4}$ of Kelly's savings was \$65 more than $\frac{1}{5}$ of Lucas's savings. How much money did Lucas save?

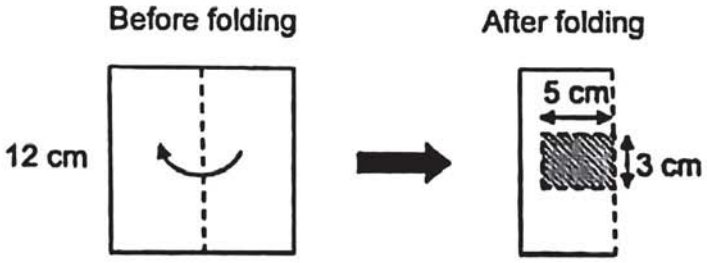
(1) \$240

(2) \$260

(3) \$300

(4) \$540

14 The figure below shows a piece of square paper with side 12 cm.
Natalie folded the piece of paper into half as shown below and cut out a rectangular strip that measured 5 cm by 3 cm. After that, she unfolded the remaining piece of paper.
What was the area of the remaining piece of paper?



(1) 30 cm^2

(2) 114 cm^2

(3) 129 cm^2

(4) 144 cm^2

15 Yu Xuan has 3 cards printed with different whole numbers.
When the numbers on the cards are added two at a time, the sums are 68, 88 and 110. What is the largest number printed on the card?

(1) 22

(2) 45

(3) 65

(4) 90

End of Paper 1 Booklet A

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NAN CHIAU PRIMARY SCHOOL
MID YEAR EXAMINATION
2022
MATHEMATICS PAPER 1
PRIMARY 6
BOOKLET B

Name / Index #		**( )**
Class	**Primary 6**_____	
Date	**17 May 2022**	
Duration for Booklets A and B	**1h**	
Marks	**Booklet B**	22/25
Parent's Signature		

Instructions to students	1.	Do NOT open this booklet until you are told to do so.
	2.	Follow all instructions carefully.
	3.	Answer all questions.
	4.	Write your answers in this booklet.
	5.	Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
	6.	Do not use correction fluid/tape or highlighters.
	7.	The use of calculators is **NOT** allowed.

This paper consists of 8 pages altogether.

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

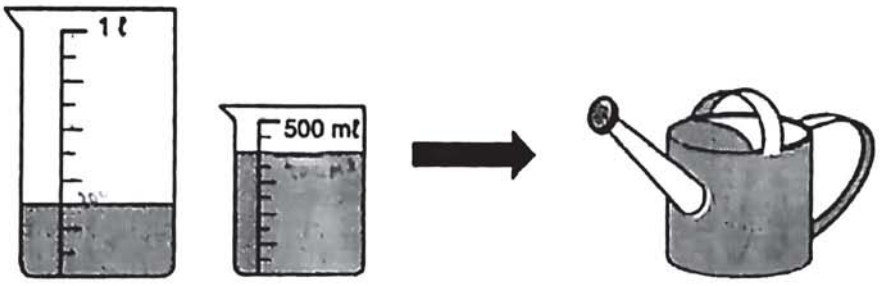
16 Mr Thio sold his car for $173 489. Round the amount to the nearest thousand dollars.

Ans: $_____

17 The temperature of a metal rod was 32°C. It was then lowered into a glass of hot water and the temperature of the metal rod rose to 40°C. Find the percentage increase in the temperature of the metal rod.

Ans: _____ %

18 All the water in the two beakers below was poured into an empty watering can. What was the total volume of water in the watering can?



Ans: _____ mℓ

Score:

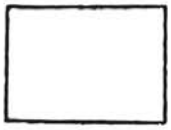
Do not write in this space

19 Write down one decimal between 1.9 and 2

Ans: _____

20 Find the value of $\frac{3}{7} \div \frac{2}{9}$. Give your answer as a mixed number in its simplest form.

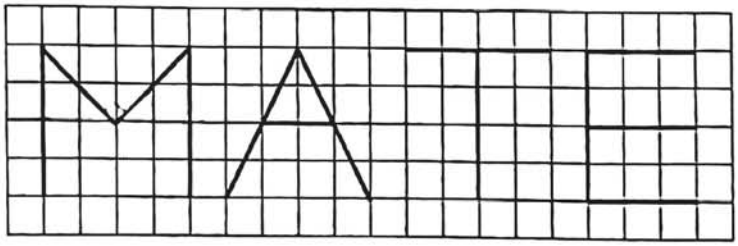
Ans: _____

Score: 

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 Four letters M, A, T, E are shown on a square grid.



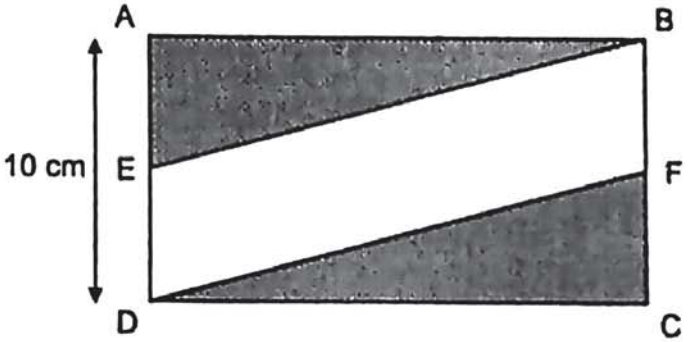
(a) Name the letter(s) that has / have perpendicular lines.

Ans: (a) _____

(b) Name the letter(s) that has / have parallel lines.

Ans: (b) _____

22 ABCD is a rectangle. E and F are the midpoints of AD and BC respectively. AD is 10 cm. The area of the unshaded part is 90 cm². Find the length of AB.



Ans: _____ cm

Score:

Do not write in this space

23 Janelle bought 4 kg of chocolates. She kept $\frac{2}{5}$ of it for herself and gave the rest equally to some friends. Each friend received $\frac{1}{5}$ kg of chocolates.
How many friends were there?

Ans: _____

24 The table below shows the prices for printing photographs in a shop.

Number of photographs	Price
First 10 pieces	$3.40 per piece
Every additional piece	$2 per piece

Leon paid $78 to print his photographs.
How many pieces of photographs did he print?

Ans: _____

Score: _____

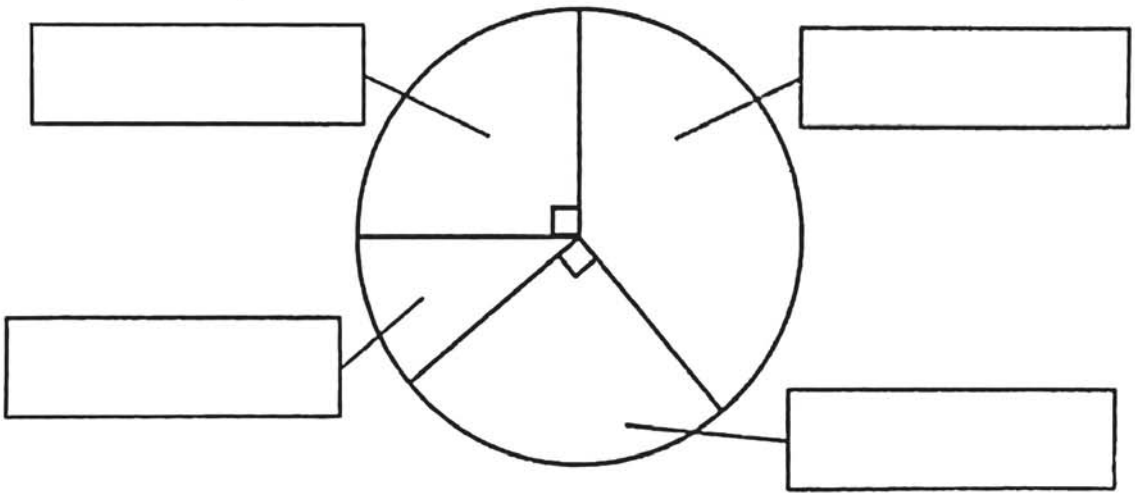
25 Sarah had 84 books and Ritesh had 52 books. After Sarah gave some of her books to Ritesh, the ratio of the number of books Sarah had to the number of books Ritesh had was 3 : 5. How many books did Ritesh have in the end?

Do not write in this space

Ans: _____

26 A bakery sold four types of cupcakes. The most number of cupcakes sold were chocolate cupcakes. The least number of cupcakes sold were vanilla cupcakes. The same number of hazelnut and peanut cupcakes were sold.

(a) The pie chart represents the number of each type of cupcakes sold. Label the parts with the correct types of cupcakes (chocolate, hazelnut, peanut, vanilla).



(b) 180 chocolate and vanilla cupcakes were sold. What was the total number of cupcakes sold?

Ans: (b) _____

Score: _____

27 The square grid shows the positions of points A, B, C, D, E, F and G.

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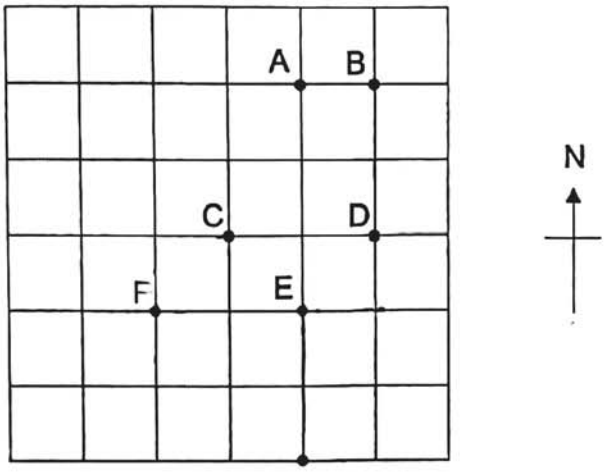


(a) Point C is north-east of Point _____.

Ans: (a) Point _____

(b) Nadia stood at one of the points facing G. After she turned 135° anti-clockwise, she faced D. Which point was Nadia at?

Ans: (b) Point _____

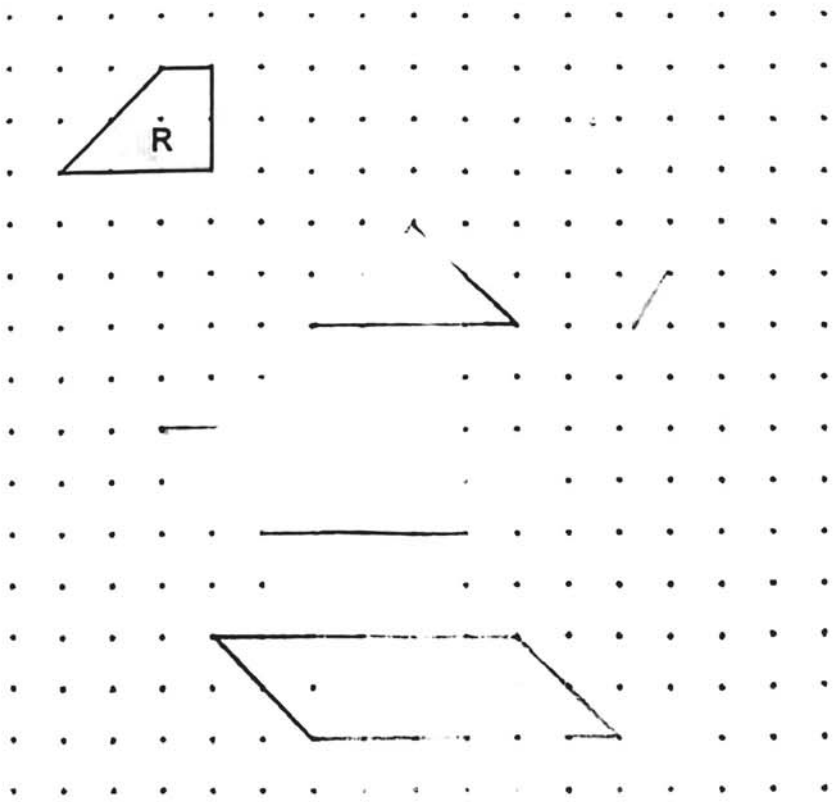
Score: _____

28 A trapezium **R** is drawn by joining the dots on the square grid below with four straight lines. In the same way,

Do not write in this space

(a) draw a triangle with the same area as **R**. Label the triangle **S**.

(b) draw a parallelogram with twice the perimeter of **R**.
Label the parallelogram **T**.



Score:

Do not write in this space

29 The table shows the number of books read by a class in four months.

Month	Number of books read
March	65
April	53
May	78
June	?

In order to qualify for the 'Class Reader Award', the class has to read an average of 70 books for 3 out of 4 months. What is the least number of books that the class has to read in June in order to qualify for the award?

Ans: _____

30 A fruit stall had the same number of apples, pears and mangoes at first. After 22 mangoes, some apples and pears were sold, there were 85 fruits left. There were twice as many apples as pears left. The number of mangoes left was 10 fewer than the number of apples left. How many pears were sold?

Ans: _____

End of Paper 1 Booklet B

Score: _____

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NAN CHIAU PRIMARY SCHOOL
MID YEAR EXAMINATION
2022
MATHEMATICS PAPER 2
PRIMARY 6

Name / Index #		**( )**
Class	**Primary 6**_____	
Date	**17 May 2022**	
Duration for Paper 2	**1h 30min**	
Marks	**Paper 2**	**/ 55**
Parent's Signature	awesome	

Instructions to students	1.	Do NOT open this booklet until you are told to do so.
	2.	Follow all instructions carefully.
	3.	Answer all questions.
	4.	Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
	5.	Do not use correction fluid/tape or highlighters.
	6.	The use of an approved calculator is allowed.

This paper consists of **15** pages altogether.

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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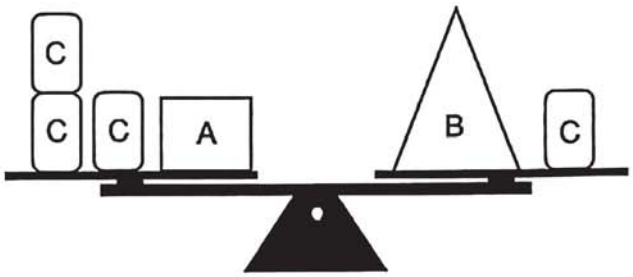
1 The figure below shows 6 objects placed on a balance scale.



Object A is 240 g lighter than object B. Find the mass of one object C.

Ans: _____ g

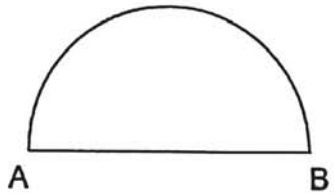
2 The price of a camera was $480. Mr Ho bought it at a discount of 5% during a sale. How much did Mr Ho pay for the camera?

Ans: $ _____

Score: _____

Do not write in this space

3 The figure shows a semicircle. AB is the diameter of the semicircle.



(a) Measure and write down the diameter of the semicircle to the nearest centimetre.

Ans: (a) _____ cm

(b) Find the perimeter of the semicircle. Take $\pi = 3.14$

Ans: (b) _____ cm

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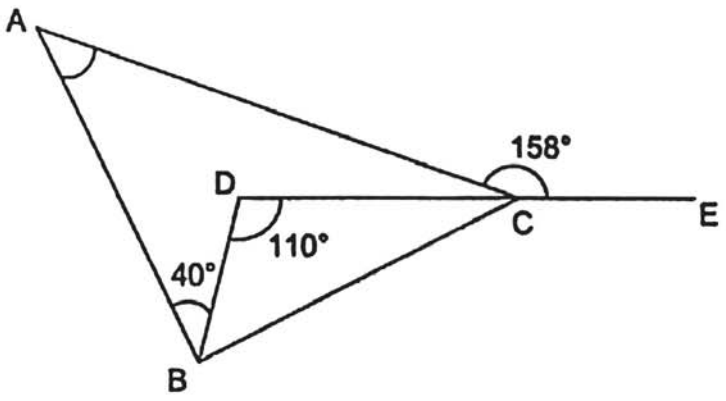
4 ABC and DBC are triangles. DCE is a straight line. $\angle ABD = 40°$, $\angle BDC = 110°$ and $\angle ACE = 158°$. Find $\angle BAC$.



Ans: _____ °

Score: _____

5 The pie chart shows Lynn's spending and savings in April.

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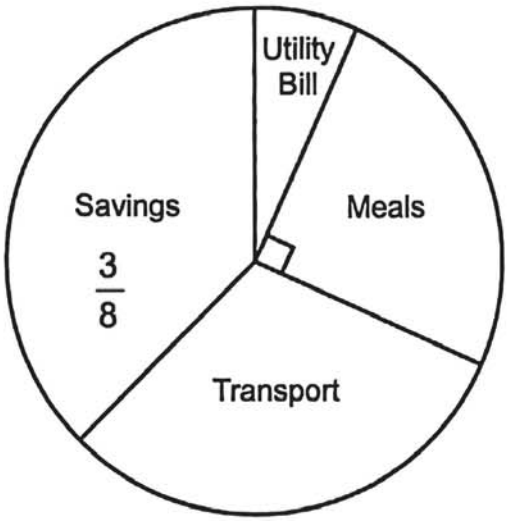


She also recorded her spending in the table below.

	Amount Spent
Utility Bill	$180
Transport	$825
Meals	?

How much did she spend on meals?

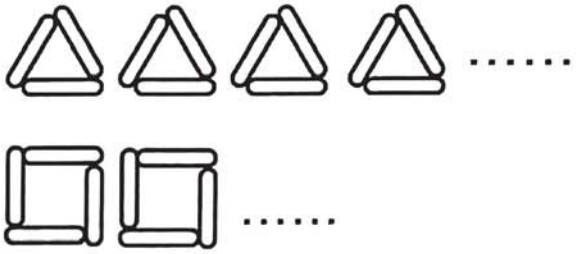
Ans: $ _____

Score:

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 the bracket [ ] at the end of each question or part–question. (45 marks)

Do not write in this space

6 Ben used 140 wooden sticks to form some triangles and squares as shown below.



He formed twice as many triangles as squares.

(a) Find the total number of triangles and squares formed.

Ans: (a) _____ [2]

(b) How many wooden sticks did Ben use for forming triangles?

Ans: (b) _____ [1]

Score: _____

7 Karen and Joanne counted their own heart beats after doing some exercises. Karen counted 42 heart beats in 15 seconds and Joanne counted 45 heart beats in 18 seconds.

Do not write in this space

(a) Which girl had a slower heart rate?

Ans: (a) _____ [1]

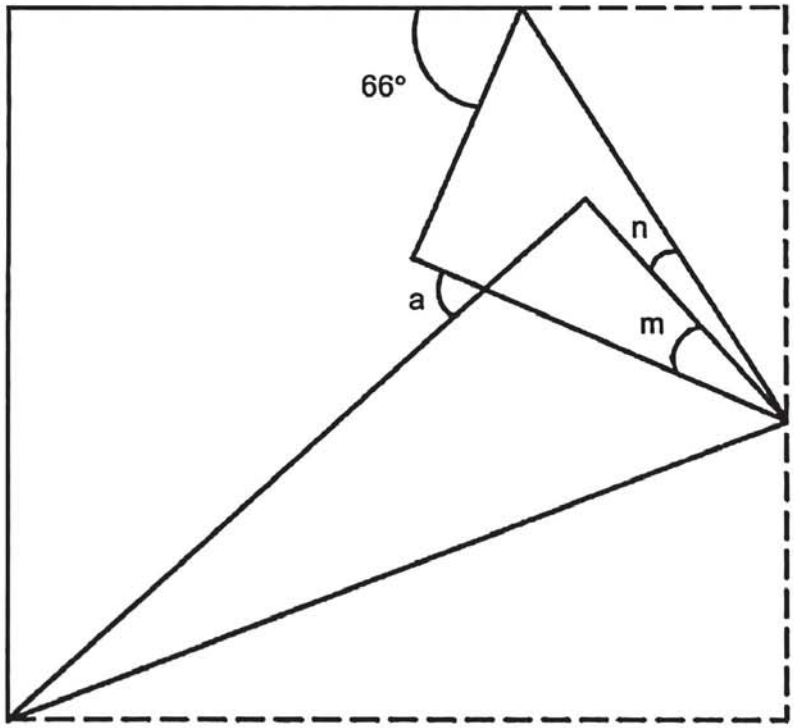
(b) Find the difference in the number of heart beats of the two girls in 1 minute.

Ans: (b) _____ [2]

Score:

8 The figure below shows a rectangular piece of paper being folded at two of its corners. ∠m is twice of ∠n. Find ∠a.

Do not write in this space



Ans: _____ [3]

Score:

9 The table below shows the average marks of the students in class 6A for a test.

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	Number of students	Average marks
Boys	15	76
Girls	20	83

(a) Find the average marks of the students in class 6A.

Ans: (a) _____ [2]

(b) A new student, Jane, joined class 6A and took the test. The average marks of the class became 79. How many marks did Jane score for the test?

Ans: (b) _____ [1]

Score: _____

Do not write in this space

10 The table shows the number of pens a shop had.

Colour	Blue	Red	Green	Black
Number of Pens	86	115	160	?

(a) 45% of the pens were blue pens and black pens.
How many black pens were there?

Ans: (a) _____ [2]

(b) The shop owner bought more blue pens. Did the percentage of the number of green pens increase, decrease or remain the same?

Ans: (b) _____ [1]

Score: ☐

11 Zikry was reading a book. At the end of the first day, the ratio of the number of pages he had read to the number of pages he had not read was 2 : 5. After reading another 108 pages on the second day, he was left with 20% of the book unread. How many pages did the book have?

Do not write in this space

Ans: _____ [3]

Score:

Do not write in this space

12 Figure 1 shows a small rectangle ABCD. Figure 2 is made up of six such rectangles. The total shaded area of Figure 2 is 245 cm^2.

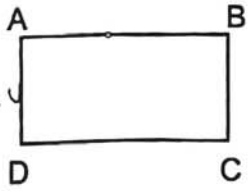


Figure 1

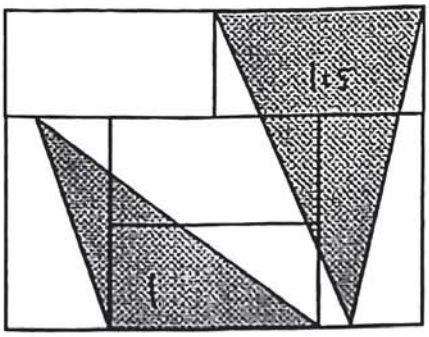


Figure 2

(a) Find the length of AB and BC.

Ans: (a) AB: _____

BC: _____ [2]

(b) Find the total unshaded area in Figure 2.

Ans: (b) _____ [2]

Score: _____

13 Mark had three types of towels – face towels, hand towels and bath towels. The number of bath towels was $\frac{3}{5}$ the number of face towels. After selling $\frac{1}{4}$ of the hand towels, he still had 22 more hand towels than face towels.

Do not write in this space

(a) Given that there were 84 bath towels, how many hand towels were not sold?

Ans: (a) _____ [2]

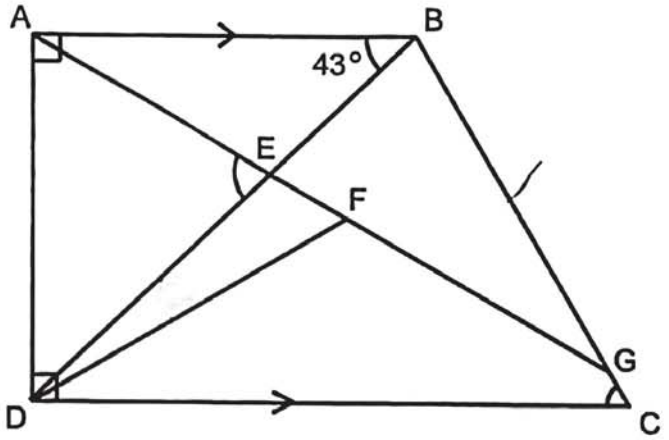
(b) What was the total number of the three types of towels he had at first?

Ans: (b) _____ [2]

Score: _____

14 In the figure below, ABCD is a trapezium, ADF is an equilateral triangle and ABG is an isosceles triangle where AB = BG. ∠ABD = 43°. AEFG and DEB are straight lines.

Do not write in this space



(a) Find ∠AED.

Ans: (a) _____ [2]

(b) Find ∠BCD.

Ans: (b) _____ [2]

Score: _____

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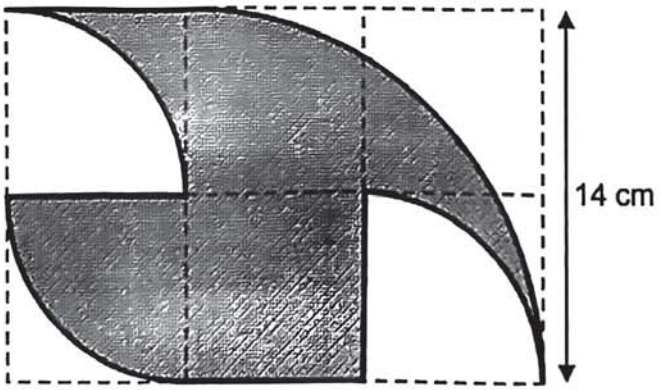
15 The figure below is drawn on a square grid. Take $\pi = \frac{22}{7}$



(a) Find the perimeter of the figure.

Ans: (a) _____ [2]

(b) Find the area of the figure.

Ans: (b) _____ [3]

Score:

16 Delvi had a rectangular block of wood 12 cm by 8 cm by 5 cm. He painted all the faces of the block.

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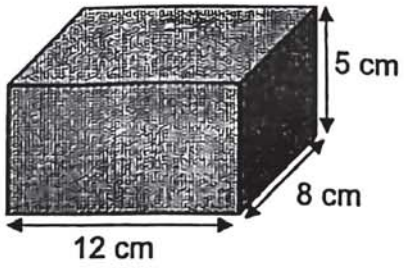

(a) Find the volume of the block of wood.

Ans: (a) _____ [1]

(b) Find the total surface area of the block of wood that is painted.

Ans: (b) _____ [2]

(c) Delvi then cut the block into 1-cm cubes. How many of these cubes have none of the faces painted?

Ans: (c) _____ [2]

Score:

17 Hazel had a sum of money. She bought 2 types of candles, large and small. She paid $34.20 for 3 large candles and 5 small candles.

Do not write in this space

Large candles Small candles

She could not buy another large candle with her remaining money as she was short of $2.60. Instead, she bought another small candle and had $0.80 left.

(a) How much money did Hazel have at first?

Ans:(a) _____ [3]

(b) John bought 39 large and small candles. He spent a total of $202. How many large candles did he buy?

Ans:(b) _____ [2]

End of Paper

Score: _____

2022 P6 Math SA1
Nan Chiau Primary School

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

16. 173000

17. 25

18 700

19. 191

20. $1\frac{13}{14}$

21a) M, E, T

21b) M, E

22. 18

23 12

24 32

25. 85

26 360

27a) F

27b) E

28.

29. 67

30 31

1. $240 \div 2 = 120$

Ans: 120 g

2. $100 - 5 = 95$

$480 \times \frac{95}{100}$

$= 456$

Ans: $456

3. a) 4cm

b) $4 \times \pi \times \frac{1}{2} + 4 = 10.28$

Ans: 10.28cm

4. $\angle ACB \rightarrow 180° - 158°$

$= 22°$

$\angle BDC \rightarrow 360° - 110°$

$= 250°$

$\angle BAC \rightarrow 360° - 250° - 22° - 40°$

$= 48°$

Ans: 48°

5. $\frac{3}{8} + \frac{1}{4} = \frac{5}{8}$

$1 - \frac{5}{8} = \frac{3}{8}$

$180 + 825 = 1005$

$1005 \times \frac{5}{3} \times \frac{1}{4} = 670$

Ans: $670

6a) $3 \times 2 + 4 = 10$

$140 \div 10 = 14$

$14 \times 2 + 14 = 42$

Ans: a) 42

6b) $14 \times 2 \times 3 = 84$

Ans: b) 84

7a) $45 \div 18 \times 15 = 37.5$

Karen per 15 secs

42

faster

Ans: a) Joanne

Joanne per 15 secs

37.5

slower

7b) $45 \div 18 \times 60 = 150$

$42 \div 15 \times 60 = 168$

$168 - 150 = 18$

Ans: b) 18

8. $(180° - 66°) \div 2$

$= 57°$

$\angle m \rightarrow (180° - 57° - 90°) \div 3 \times 2$

$= 22$

$\angle a \rightarrow 180° - 90° - 22°$

$= 68°$

Ans: 68°

9a) Total $\rightarrow 76 \times 15 + 20 \times 93$

$= 2800$

$15 + 20 = 35$

$2800 \div 35 = 80$

Ans: a) 80

9b) $35 + 1 = 36$

$36 \times 79 = 2844$

$2844 - 2800 = 44$

Ans: b) 44

10a) $100 - 45 = 55$

$(115 + 160) \div 55 = 5$

$5 \times 45 - 86 = 139$

Ans: a) 139

10b) Ans: b) Decrease

11) $2 + 5 = 7$

$\frac{5}{7} - \frac{2}{10} = \frac{18}{35}$

$108 \times \frac{35}{18} = 210$

Ans: 210

12) a) $245 \times 2 =$ 490

$490 \div 5 = 98$

$98 = 14 \times 7$

Ans a) AB: 14cm

BC: 7cm

13 a) $84 \times \frac{5}{3} = 140$

$140 + 22 = 162$

Ans: a) 162

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

$162 \times \frac{4}{3} + 140 + 84 = 440$

Ans: b) 440

14. a) $\angle BAE \rightarrow 90^\circ - 60^\circ$
$= 30^\circ$

$\angle AEB \rightarrow 180^\circ - 30^\circ - 43^\circ$
$= 107^\circ$

$\angle AED \rightarrow (360^\circ - 107^\circ \times 2) \div 2$
$= 73^\circ$

Ans a) 73°

14 b)

$\angle ABC \rightarrow 180^\circ - 30^\circ \times 2$
$= 120^\circ$

$\angle BCD \rightarrow 180^\circ - 120^\circ$
$= 60^\circ$

Ans: b) 60°

15a) $14 \div 2 = 7$

$\frac{22}{7} \times 14 \times \frac{3}{4} = 33$

$14 \times 2 = 28$

$2\frac{2}{7} \times 28 \times \frac{1}{4} = 22$

$22 + 33 + 7 \times 4 = 83$

Ans: a) 83 cm

15b) $7 \times 7 \times \frac{22}{7} \times \frac{1}{4} = 38.5$

$7 \times 7 - 38.5 = 10.5$

$14 \times 14 \times \frac{22}{7} \times \frac{1}{4} - 38.5 = 115.5$

$38.5 + 115.5 + 10.5 = 164.5$

Ans: b) $164.5 cm^2$

16a) $12 \times 8 \times 5 = 480$

Ans: a) $480 cm^3$

16b) $8 \times 5 \times 2 = 80$

$12 \times 5 \times 2 = 120$

$8 \times 12 \times 2 = 192$

$192 + 120 + 80 = 392$

Ans: b) $392 cm^2$

16c) $(5-2) \times (8-2) \times (12-2) = 180$

Ans: c) 180

17a) $5 + 3 = 8$

$2.60 + 0.8 = 3.4$

$(34.2 - 3.4 \times 3) \div 8 = 3$

$34.2 + 3 + 0.8 = 38$

Ans a) $38

17b) $3 \times 39 = 117$

$202 - 117 = 85$

$85 \div 3.4 = 25$ Ans: b) 25