NAN HUA PRIMARY SCHOOL
NON-WEIGHTED ASSESSMENT – 2020
PRIMARY 6

MATHEMATICS
Paper 1

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

Name : _____( )

Class : 6_____

Date : 17 June 2020

Parent's Signature :_____

Nan Hua Primary School
P6 Mathematics

Name: _____( ) Marks: 45

Class: P6___ Date: _____

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 372 851 to the nearest hundred.

   (1) 372 800

   (2) 372 850

   (3) 372 900

   (4) 373 000

2. What is the value of $24 + 16 \div (5 - 1) \times 2$?

   (1) 5

   (2) 20

   (3) 26

   (4) 32

3. Which of the following are common factors of 24 and 30?

   (1) 2 and 3

   (2) 3 and 5

   (3) 4 and 5

   (4) 4 and 6

4. Find the value of $\frac{5}{6} \times 20$.

(1) $\frac{1}{24}$

(2) $\frac{3}{50}$

(3) $16\frac{2}{3}$

(4) 24

5. Which of the following is common multiple of 4 and 9?

(1) 16

(2) 18

(3) 32

(4) 36

6. Simplify the following algebraic expression.

$12p + 7 - 5p - 3$

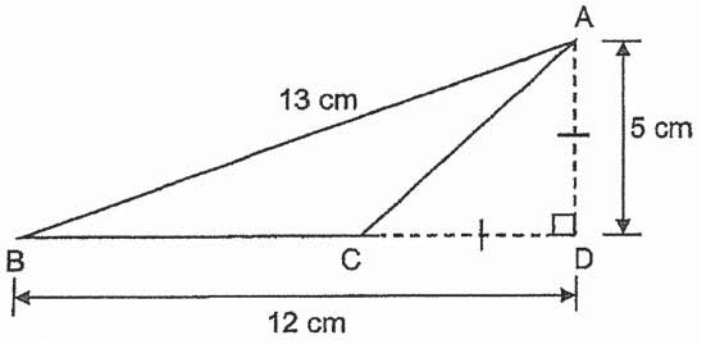
(1) $17p + 10$

(2) $17p + 4$

(3) $7p + 10$

(4) $7p + 4$

7. In the figure below, not drawn to scale, BCD is a straight line and AD = CD. What is the area of triangle ABC?



(1) 17.5 cm^2

(2) 30 cm^2

(3) 32.5 cm^2

(4) 78 cm^2

8. Betty had some fruits. $\frac{5}{9}$ of the fruits were apples and the rest were oranges. $\frac{3}{10}$ of the apples were green apples and the rest were red apples. What fraction of the fruits were red apples?

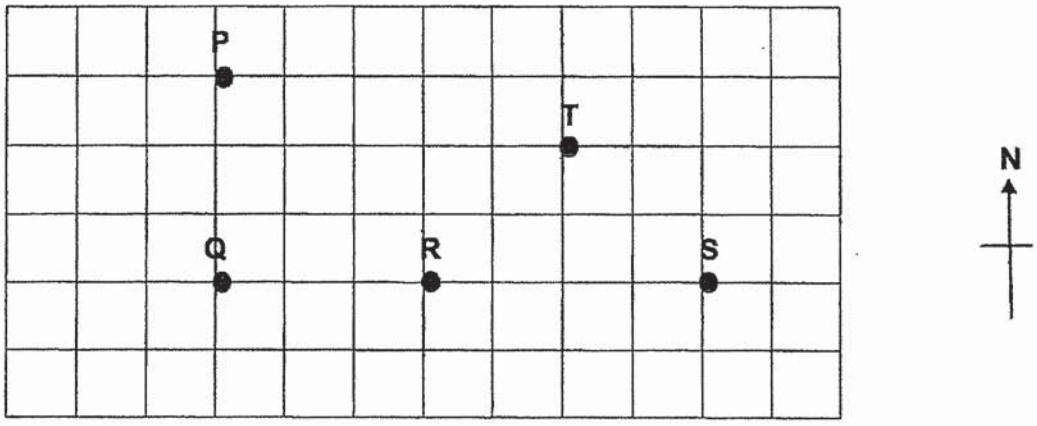
(1) $\frac{2}{15}$

(2) $\frac{3}{18}$

(3) $\frac{14}{45}$

(4) $\frac{7}{18}$

9. In the square grid below, a school is located at south-west of point T. At which point is the school located?



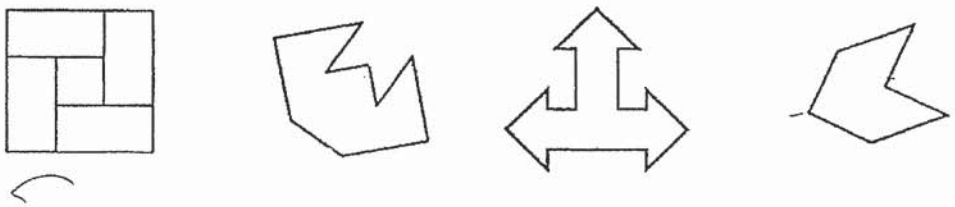
(1) P

(2) Q

(3) R

(4) S

10. Which one of the following is not a symmetric figure?



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

11. A class of students was asked to sell concert tickets.

The table below shows the number of tickets sold by the students in the class.

Number of students	Number of tickets sold by each student
9	0
11	2
?	3
2	5

The students sold a total of 56 tickets. How many students sold only 3 tickets each?

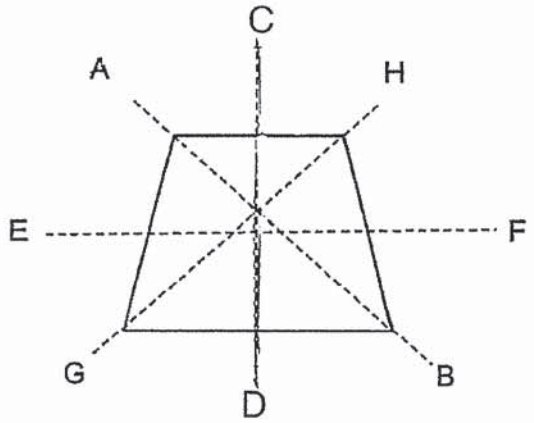
(1) 32

(2) 24

(3) 8

(4) 5

12. Which of the following lines is the line of symmetry of the trapezium?



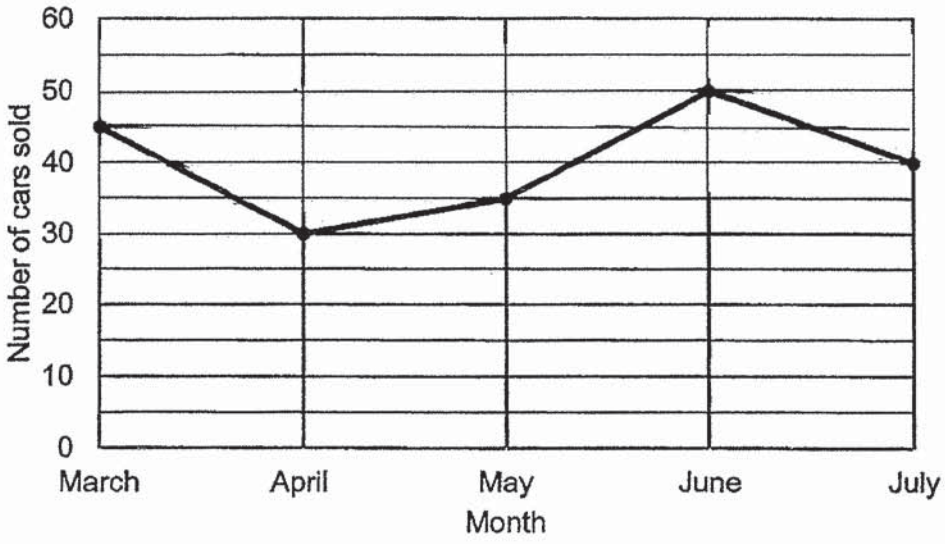
(1) AB

(2) CD

(3) EF

(4) GH

13. The line graph below shows the number of cars sold from March to July.



What percentage of the total number of cars sold from March to July was sold in the month of April?

(1) 15%

(2) 30%

(3) 85%

(4) 200%

14. 120 kg of chicken wings were packed into 40 packets equally. What was the mass of each packet of chicken wings?

(1) 30 g

(2) 300 g

(3) 3 g

(4) 3 000 g

15. Box A contains only 20-cent coins and Box B contains only 50-cent coins. The number of coins in Box A is twice the number of coins in Box B. The amount of money in Box B is $1.60 more than the amount of money in Box A. How many 20-cent coins are there in Box A?

(1) 8

(2) 16

(3) 32

(4) 48

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 $12 \div \frac{8}{9}$. Leave your answer as a mixed number in its simplest form.

Ans : _____

17. The table below shows the number of laptops owned by per household in a housing estate.

Number of laptops owned by per household	0	1	2	3 and more
Number of households	9	53	62	16

How many households owned at least 2 laptops?

Ans : _____

18. Anita started her jog at 17 37. She finished jogging at 18 26. How long did Anita jog?

Ans: _____ min

Subtotal	/ 3

19. 5 children shared $\frac{4}{5}\ell$ of lemonade equally. How much lemonade did each child get?

Do not write in this space

Ans : _____ ℓ

20. Arrange the following fractions in ascending order.

$\frac{2}{3}$, $\frac{3}{7}$, $\frac{1}{2}$, $\frac{5}{8}$

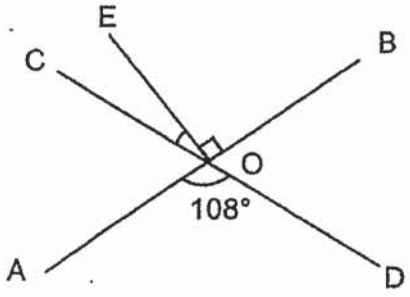
Ans : _____ , _____ , _____ , _____
(smallest) *(greatest)*

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]

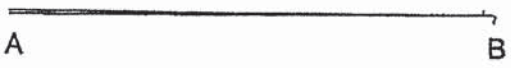
Do not write in this space

21. AB and CD are straight lines. Find ∠COE.



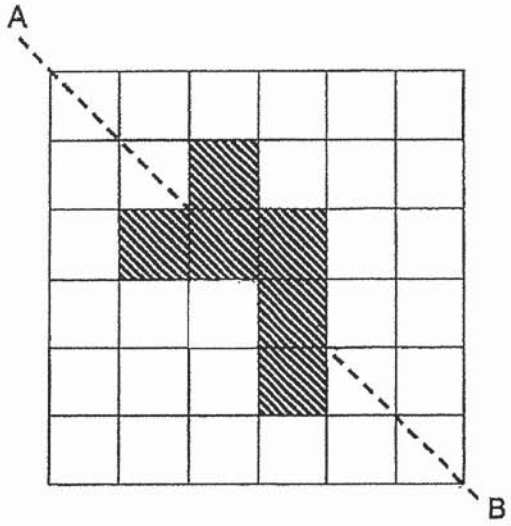
Ans : _____ °

22. Using the line AB provided below, construct ∠ABC = 110°.



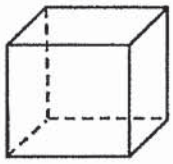
Subtotal	/ 4

23. There are 6 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 edge of a cube is 6 cm. What is the volume of the cube?



Ans : _____ cm^3

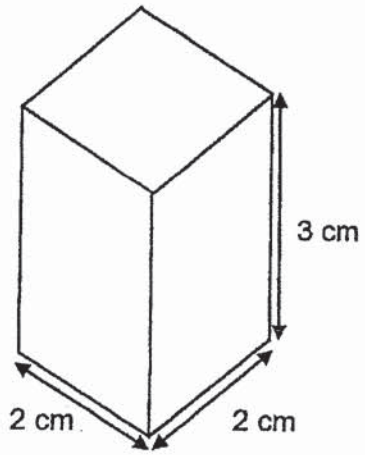
25. What is the value of $\frac{14a + 11}{3}$ when $a = 8$?

Ans : _____

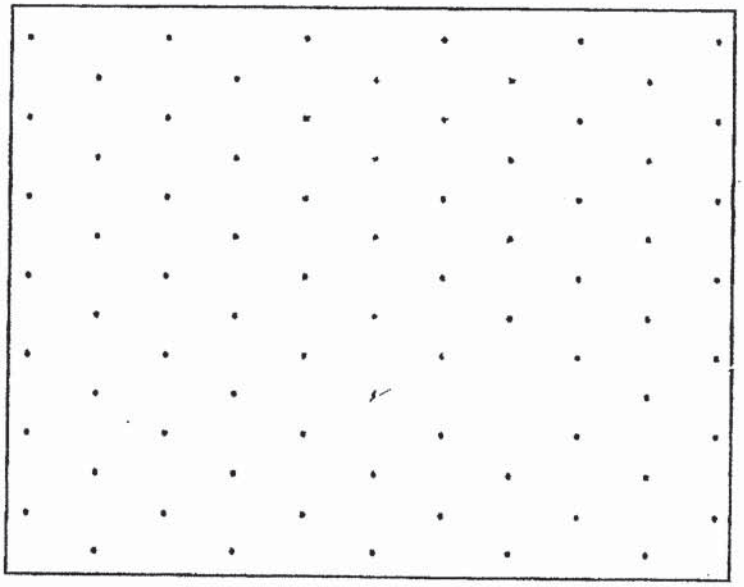
Subtotal	/ 6

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

Do not write in this space



Cuboid A



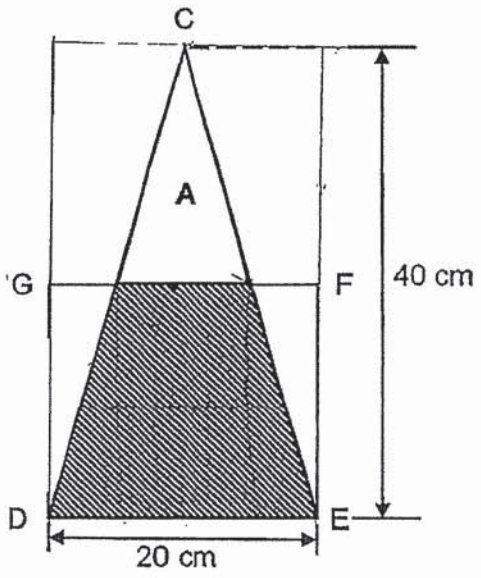
Subtotal	/ 2

27. There were 120 red, blue and yellow beads in a box. The number of red beads is $\frac{1}{4}$ the number of blue beads. There were 30 more yellow beads than red beads. What is the ratio of the number of red beads to the number of blue beads to the number of yellow beads in the box?

Do not write in this space

Ans : _____

28. In the figure below, not drawn to scale, consists of a triangle CDE and a square DEFG. Find the area of unshaded triangle **A**.



Ans: _____ cm^2

Subtotal	/ 4

29. Fatimah, Gretel and Helen shared $\$n$. Fatimah received thrice as much money as Helen. Gretel received \$15 less than Fatimah.

Do not write in this space

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
Gretel received more money than Helen.			
Helen received $\$\left(\frac{n+15}{7}\right)$.			

30. The list below shows the items Mrs Lim bought. The average cost of the items was \$25. What was the cost for Item A?

Item	Cost
A	\$1☐
B	\$ 34
C	\$☐8
D	\$ 22

Ans: Item A : \$_____

Subtotal	/ 4

END OF PAPER 1

NAN HUA PRIMARY SCHOOL
NON-WEIGHTED ASSESSMENT – 2020
PRIMARY 6

MATHEMATICS
Paper 2

Total Time for Paper 2: 1 hour 30 minutes

INSTRUCTION TO CANDIDATES

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Marks Obtained

Total	Max Mark
	55

Name : _____ ( )

Class : 6_____

Date : 17 June 2020

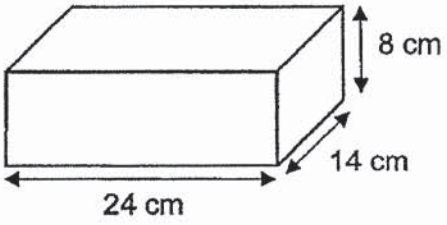
Parent's Signature : _____

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 figure below shows a 24 cm by 14 cm by 8 cm cuboid. Find the volume of the cuboid.



Ans: _____ cm^3

2. Gabby and Helen shared a sum of money in the ratio of 3 : 2. When Gabby gave $20 to Helen, the ratio of Gabby's amount of money to Helen's amount of money became 4 : 11. How much money did Gabby have at first?

Ans: $ _____

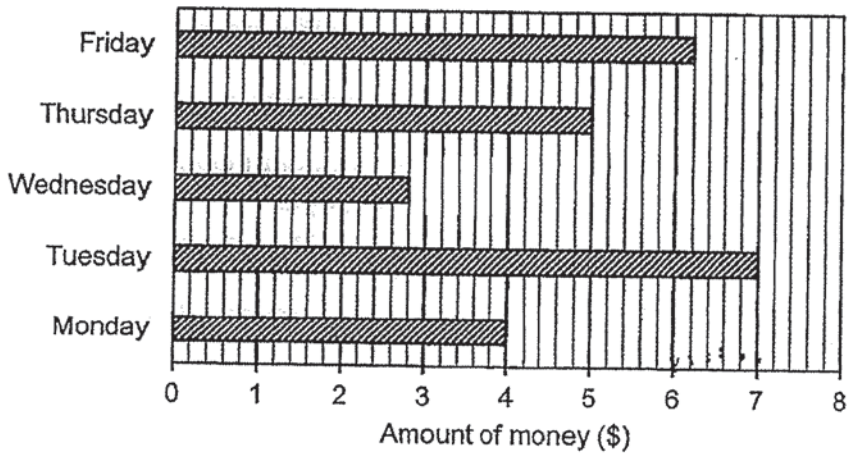
Do not write in this space

3. Mr Lai and his 3 children went to a Maze Park. They stayed there from 15 00 to 17 10. The table below shows the charges. How much did Mr Lai pay for the children?

	1st hour	Every additional $\frac{1}{2}$ hour
Adult	\$12.50 per hour	\$7
Child	\$7.50 per hour	\$4

Ans: \$_____

4. Jennis received \$8 for her pocket money from her parents daily. The following bar graph shows her spending on a certain week.

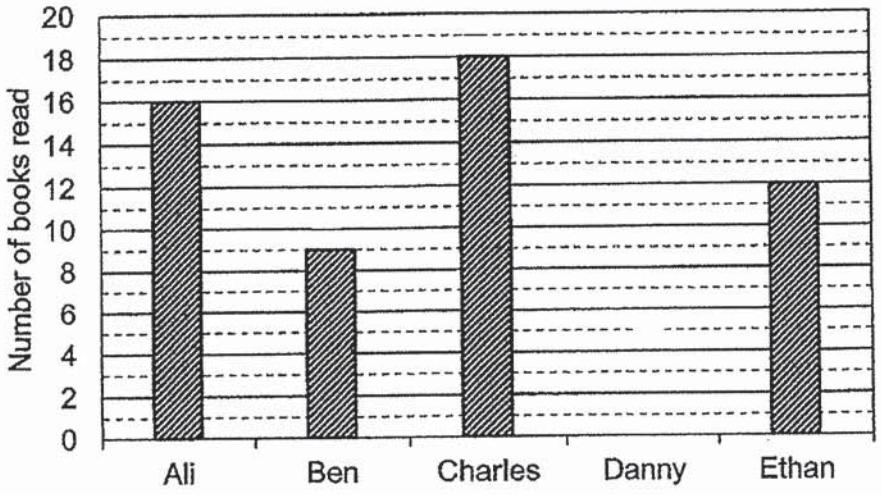


What was Jennis' average savings over the 5 days?

Ans: \$_____

5. The following bar graph shows the number of books read by 5 boys over a week.

Do not write in this space



What is the average number of books read by the boys?

Ans: _____

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)

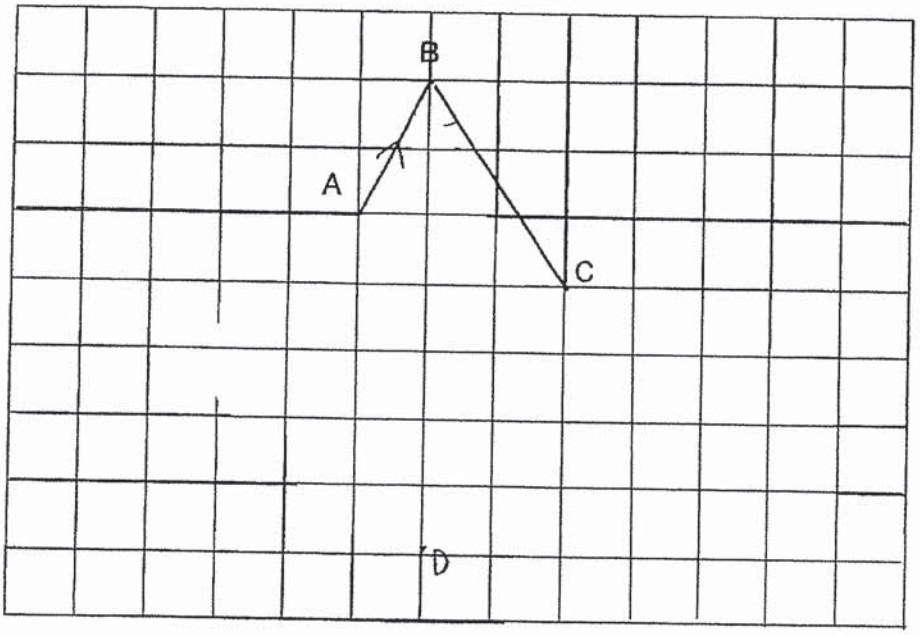
Do not write in this space

6. Katinah paid $36 for 30 cupcakes after a 20% discount. How many cupcakes could she have bought with the same amount of money without the discount?

Ans: _____ [3]

7. In the square grid, AB and BC are drawn. They form 2 sides of a trapezium ABCD.

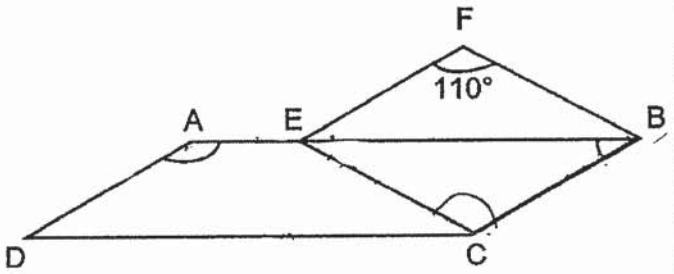
(a) Measure and write down the size of ∠ABC.
(b) Complete the drawing of the trapezium ABCD such that AB is parallel to CD and line CD is twice as long as line AB. [2]



Ans: (a) _____ [1]

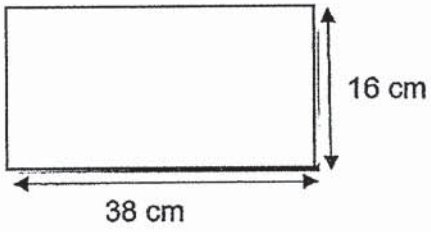
8. The figure below, not drawn to scale, is made up of a parallelogram ABCD and a rhombus BCEF. Given that $\angle BFE = 110°$, find $\angle BAD$.

Do not write in this space



Ans: _____ [3]

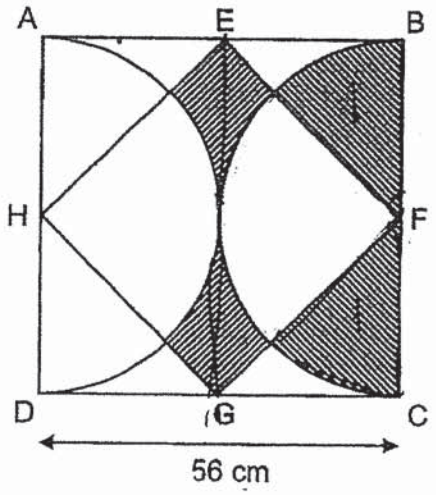
9. The diagram below, not drawn to scale, shows a rectangle. When its length is increased by 50% and its breadth is increased by 20%, what is the percentage increase in its area?



Ans: _____ [4]

10. The figure below is made up of 2 square, ABCD and EFGH, and 2 identical semicircles. E, F, G and H are the mid-points of AB, BC, CD and AD respectively. Find the total area of the shaded parts.

(Take $\pi = \frac{22}{7}$)



Do not write in this space

Ans: _____ [3]

11. In a box, the ratio of the number of blue beads to the number of red beads was 5 : 14. The ratio of the number of yellow beads to the number of red beads was 2 : 7.

Do not write in this space

(a) Find the ratio of the number of blue beads to the number of yellow beads to the number of red beads.

(b) After 360 blue beads were removed from the box, $\frac{1}{10}$ of the remaining beads were blue beads. How many more red beads than blue beads were there in the box? in the end.

Ans: (a) _____ [1]

(b) _____ [3]

12. Mrs Ang gave a bag of marbles to her children. If she gave them 9 more marbles to share among themselves, they would have an average number of 18 marbles. If she gave them 25 more marbles to share among themselves, they would have an average number of 22 marbles. How many children did Mrs Ang have?

Do not write in this space

Ans: _____ [3]

13. Mr Liang paid $1788.60 for some boxes of face masks and boxes of alcohol swab. He paid $1603.80 more for the face masks than the alcohol swab. The number of boxes of face masks he bought was three times as many as the number of boxes of alcohol swab. A box of alcohol swab cost $21.50 less than a box of face masks. Find the cost of a box of face masks.

Do not write in this space

Ans: _____ [4]

14. Yasmin had 210 kg of grapes. She sold $\frac{3}{7}$ of the grapes on Monday and $\frac{3}{8}$ of the remainder on Tuesday. She packed the remaining grapes into small bags containing $\frac{3}{4}$ kg of grapes. How many small bags of grapes did Yasmin pack?

Do not write in this space

Ans: _____ [4]

15. The diagram below shows 4 figures formed by shaded and unshaded hexagons.

Figure 1 Figure 2 Figure 3 Figure 4

(a) Complete the table below.

(b) Find the number of unshaded hexagons in Figure 15.

(c) The total number of hexagons of a figure is 529. What is the difference between the number of shaded hexagons and the number of unshaded hexagons of that figure?

Figure Number	Total number of hexagons	Total number of shaded hexagons
1	1	1
2	4	3
3	9	6
4	16	10
7	(i)_____	(ii)_____

Ans: (a) (i)_____[1]

(ii)_____[1]

(b) _____[2]

(c) _____[1]

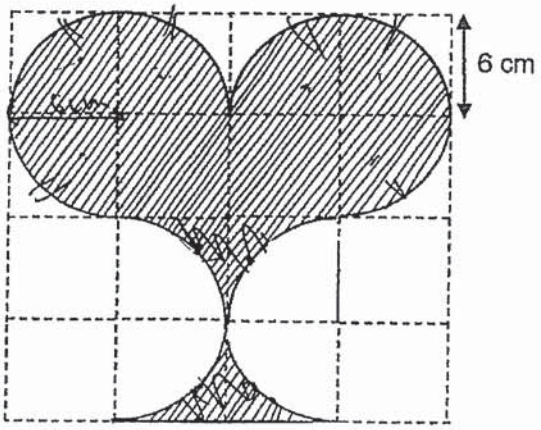
Do not write in this space

16. The figure below is made up of two identical semicircles, 6 identical quadrants and 16 squares. The side of each square is 6 cm.

(a) Find the perimeter of the shaded figure.

(b) Find the area of the shaded figure.

(Take $\pi = 3.14$)



Do not write in this space

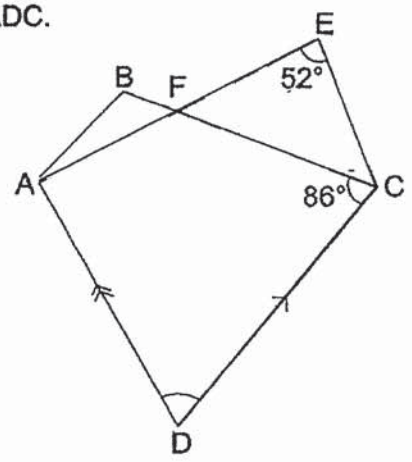
Ans: (a)_____ [2]

(b) _____ [2]

17. The figure below, not drawn to scale, is made up of 2 trapeziums ABCD and ADCE. AB is parallel to DC and AD is parallel to EC. $\angle BCD = 86°$, $\angle CEF = 52°$ and EF = CE.

(a) Find $\angle BAF$.

(b) Find $\angle ADC$.



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Ans: (a) _____ [3]

(b) _____ [2]

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

ANSWER KEY

YEAR: 2020
LEVEL: PRIMARY 6
SCHOOL: NAN HUA
SUBJECT: MATH
TERM: SA1

Q1	3	Q2	4	Q3	1	Q4	3	Q5	4
Q6	4	Q7	1	Q8	4	Q9	3	Q10	1
Q11	3	Q12	2	Q13	1	Q14	4	Q15	3

Q16. 13½

Q17. 78

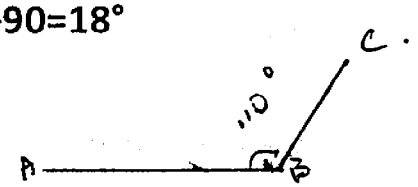
Q18. 49min

Q19. ⅕

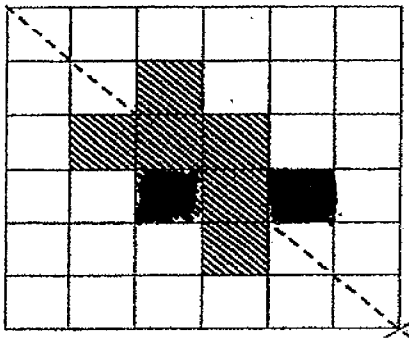
Q20. $\frac{3}{7}$,½,⅝,⅔

Q21. 108−90=18°

Q22. 110°



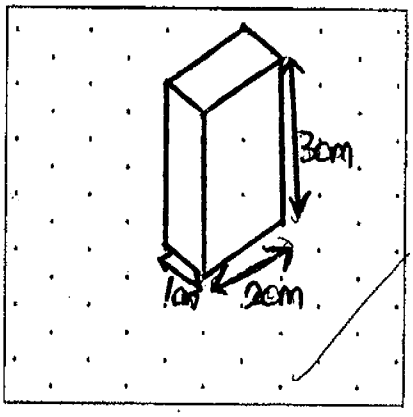
Q23.



Q24. $6\times6\times6=216cm^3$

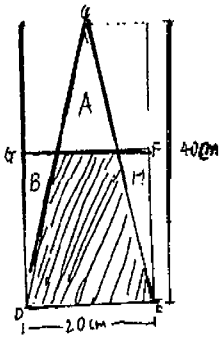
Q25. $\frac{14a+11}{3}=\frac{112+11}{3}=41$

Q26.



Q27. 1:4:3

Q28.



DEFG is a square Label triangles B and H
Area of triangle A= Total Area of B+H
Total base of triangle A+B+H=20cm
Base of triangle A = 20cm ÷2=10cm
Height of triangle A=40cm-20cm=20cm
Total area of triangle=$2x(\frac{1}{2}$ x 20cmx10cm)
=2x100=200 cm2
Area of triangle A= 200 cm2 ÷ 2 =100cm2

Q29. Not possible to tell
True

Q30.$16

PAPER 2

Q1. $24\text{cm}\times14\text{cm}\times8\text{cm}=2688\text{cm}^3$

Q2. $36

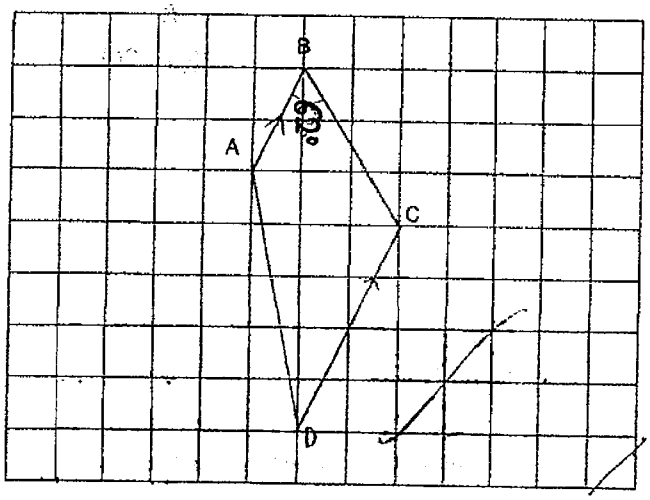
Q3. $58.50

Q4.$3

Q5. 16+9+18+0+12=55
55÷5=11

Q6. 24 cupcakes

Q7.



a)62°

Q8. 180−110=70
70÷2=35
180−35=145°

Q9. 38cm x 150% = 57cm
16cm x 120% =19.2cm
original area – 38cm x 16cm = 608cm2
new area – 57cm x 19.2cm = 1094.4cm2
$\frac{1044.4}{608}$ x 100 = 180%
Percentage increase in area –
180% - 100% = 80%

Q10. 952cm^2

Q11. a) B:R =5:14
Y:R=2:7
B:Y:R=5:4:14
b) 5u+4u+14u=23u
4u+14u=18u
$\frac{1}{10}$ of the remaining beads
5u−2u=3u
3u=360
1u=360÷3=120
2u=120×2=240
14u=120×14=1680 1680−240=1440 beads//

Q12. 9+y=18x
18x=y
25+y=22x
25+18x−9=22x
25−9=22x−18x
16=22x−18x
16=4x
x=16÷4=4 children

Q13. 25.70

Q14. $1-\frac{3}{7}=\frac{4}{7}$

$\frac{4}{7}\times\frac{3}{8}=\frac{3}{14}$

$1-\frac{3}{7}-\frac{3}{14}=\frac{5}{14}$

$210kg\times\frac{5}{14}=75kg$

$75kg\div\frac{3}{4}kg=100$ small bags

Q15. a)(i) 49

(ii)28

b)105

c)25

Q16. a)$6\times2=12cm$

$\frac{1}{4}\times3.14\times12=9.42cm$

$9.42cm\times10=94.2cm$

$94.2cm+12cm=106.2cm$

b)$\frac{1}{4}\times3.14\times6\times6=28.26$

$6\times6=36$

$36-28.26=7.74$

$7.74\times4=30.96$

$28.26\times6=169.56$

$36\times2=72$

$30.96+169.56+72$

$=272.52cm^2$

a)106.2cm

b)$272.52cm^2$

Q17. a)$180-86=94$

$180-52=128$

$128\div2=64$

$180-94-64=22$

b)$86+64=150$

$180-150=30$

a)22°

b)30°

2ND