RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2020 PRELIMINARY ASSESSMENT

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 20 Aug 2020

BOOKLET A

15 Questions
20 Marks
Duration of Paper 1 (Booklets A & B): 1 hour

Note:

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
   (a) Page 1 to Page 5
   (b) Questions 1 to 15
6. You are not allowed to use a calculator.

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 correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

---

1 Which of the following is eight hundred and two thousand and seven in figres ?

(1) 80 207
(2) 802 007
(3) 820 007
(4) 8 002 007

2 Express **5004g** as kg and g.

(1) 5 kg 4 g
(2) 5 kg 40 g
(3) 50 kg 4 g
(4) 50 kg 40 g

3 Which of the following is the **smallest ?**

(1) 8.27
(2) 8.72
(3) 8.207
(4) 8.702

4 Which of the following is equivalent to $\frac{15}{20}$?

(1) $\frac{9}{16}$

(2) $\frac{10}{15}$

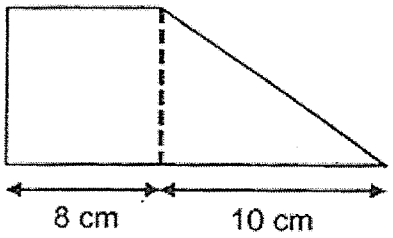
(3) $\frac{9}{15}$

(4) $\frac{9}{12}$

5 The radius of a circle is 10 cm . Find the circumference of the circle. Take $\pi = 3.14$

(1) 31.4 cm
(2) 62.8 cm
(3) 78.5 cm
(4) 314 cm

6 The figure is made up of a square and a right-angled triangle. Find the area of the figure.



(1) 72 cm^2
(2) 104 cm^2
(3) 114 cm^2
(4) 144 cm^2

7 Which letter below is **not** symmetrical?

T O W N

(1) T
(2) O
(3) W
(4) N

8 What is the value of $2m + \frac{m-1}{10}$ when m = 3?

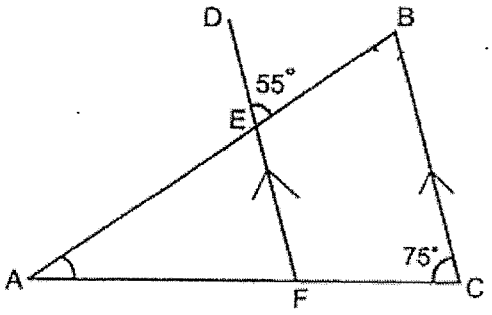
(1) 5.6
(2) 5.8
(3) 6.2
(4) 6.4

9 The average of two numbers is 38. When a third number is added, the average of the three numbers is 40. Find the third number.

(1) 39
(2) 42
(3) 44
(4) 82

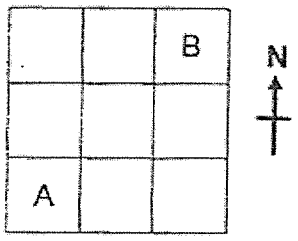
10 In the figure below, ABC is a triangle. $\angle DEB = 55^\circ$ and $\angle FCB = 75^\circ$.

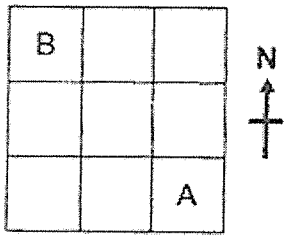
BC is parallel to DF. Find $\angle EAF$.

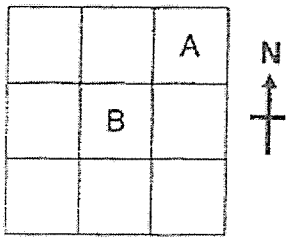


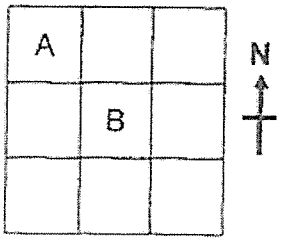
(1) 20°
(2) 50°
(3) 55°
(4) 75°

11 Points A and B are drawn on square grid below.
Which of the following shows A is south-west of B correctly?

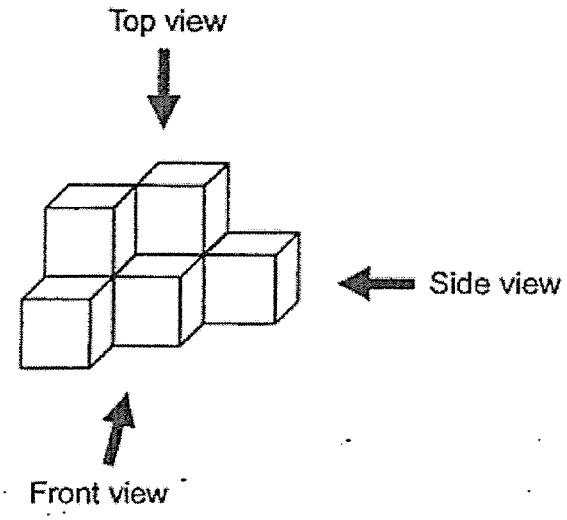
(1)


(2)


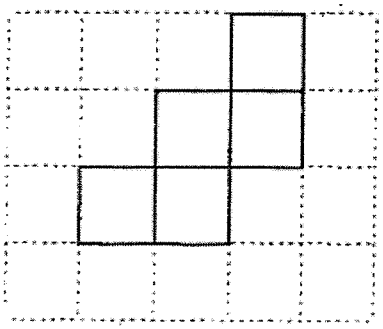
(3)


(4)


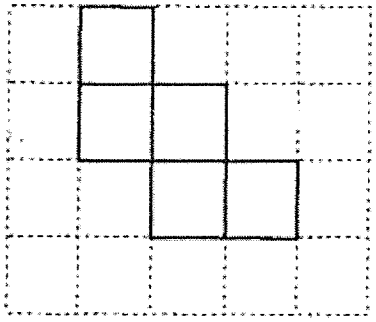
12 The solid below is made of 7 cubes.
Which of the following shows the top view of the solid correctly ?



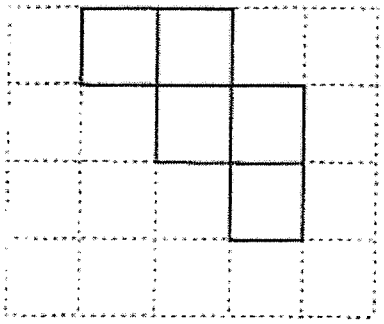
(1)



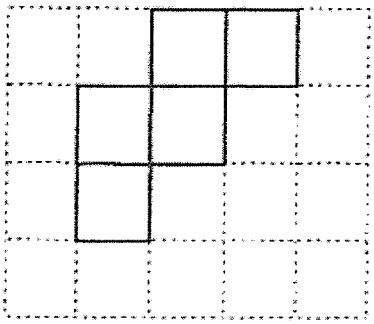
(2)



(3)



(4)



13 At a supermarket, 5 apples are sold at $3.55. What is the price of 30 apples ?

(1) $17.75
(2) $21.30
(3) $106.50
(4) $124.25

14 A group of students was asked to vote for their favourite fruit from a list of 4 fruits. The table shows the number of students who voted for each fruit. How many type(s) of fruit(s) was/were voted as a favourite by more than 25% of the students?

Types of fruit	Apple	Banana	Orange	Pear
Number of students	30	18	10	22

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

15 A number is the sum of all the factors of 14. Which of the following can be added to the number to change it to a multiple of 9?

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

RED SWASTIKA SCHOOL

2020 PRELIMINARY ASSESSMENT

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 20 Aug 2020

BOOKLET B

15 Questions
25 Marks

In this booklet, you should have the following:
(a) Page 6 to Page 12
(b) Questions 16 to 30

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		20
BOOKLET B		25
TOTAL		45

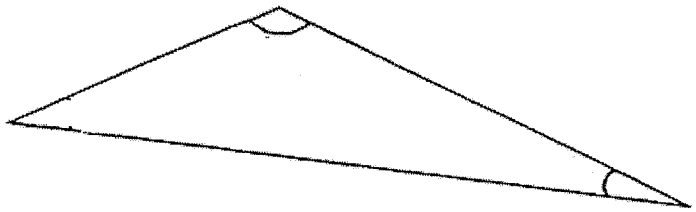
Parent's Signature : _____

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)

16 Find the value of 58 x 60.

Ans: _____

17 Use a protractor to measure the obtuse angle in the triangle below and write the answer in the answer space provided.



Ans: _____ °

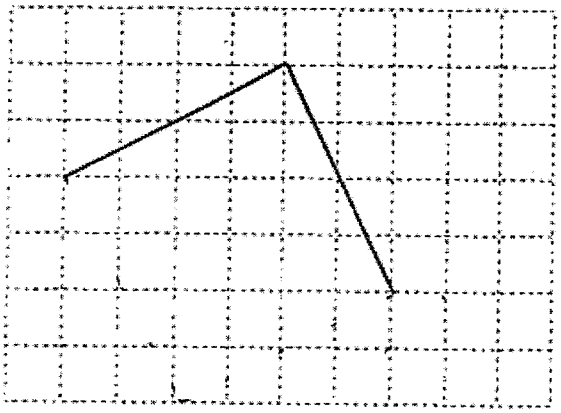
18 The table below shows the number of dollar notes that Kim has saved. Find the total amount of money Kim has saved.

Type of dollar notes	$2	$5	$10
Number of dollar notes	4	5	1

Ans: $_____

3

19 On the grid below, draw two straight lines to complete a symmetrical figure.



20 A machine takes 5 minutes to make 3 boxes. With two such machines working at the same given rate, how mant minutes would be needed to make 90 such boxes ?

Ans: _____ min

2

Questions 21 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

---

21 Find the value of

(a) $8 \times 4 \div 2 - 1$

(b) $20 - (3 + 4 \times 2)$

Ans: (a) _____

(b) _____

---

22 Find the value of $\frac{7}{4} + 2\frac{5}{6}$ as a mixed number in its simplest form.

Ans: _____

4

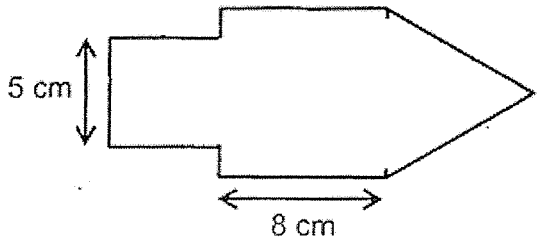
4

23 Water from a tap fills an empty tank at 600 *mℓ* per minute. At this rate, how much water is in the tank after 25 minutes? Express your answer in litres.

Ans: _____ *ℓ*

---

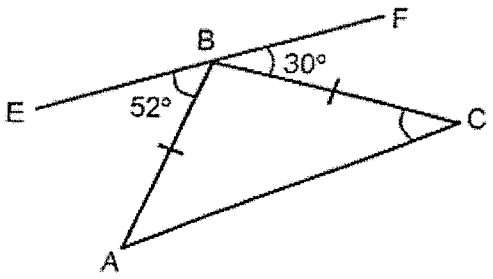
24 The figure is made up of 2 squares and 1 equilateral triangle. Find the perimeter of the figure.



Ans: _____ cm

4

25 In the figure below, ABC is an isosceles triangle, EBF is a straight line, $\angle ABE = 52°$ and $\angle CBF = 30°$. Find $\angle BCA$.



Ans: _____

---

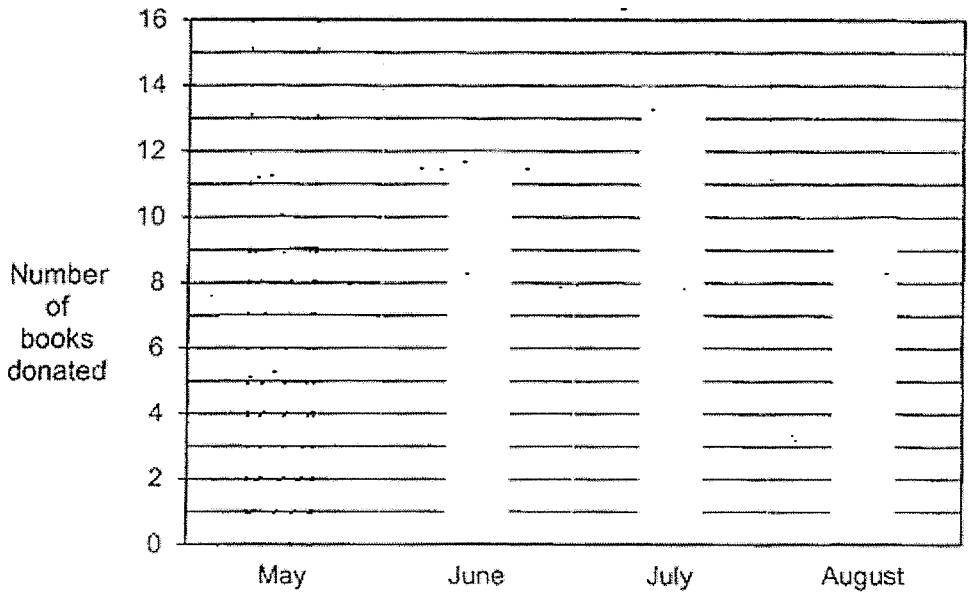
26 The average of 2 numbers is 39. The average of another 3 numbers is 44. Find the total of these 5 numbers.

Ans: _____

4

Use the information below to answer Questions 27 and 28.

The bar graph below shows the number of books donated by a class from May to August. The number of books donated in May was $\frac{1}{5}$ of the total number of books donated during the 4 months.



27 Draw the bar for May in the graph.

28 What fraction of the total number of books was donated in June?

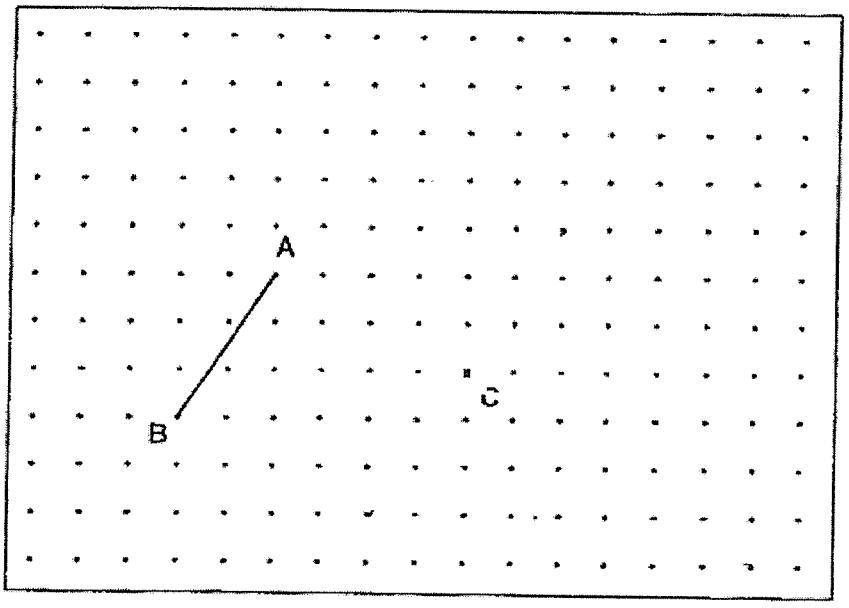
Ans: _____

29 In a sale, each cup is sold at $3a and each plate is sold at $(a + 4). Find the total price of 3 cups and 2 plates in terms of a. Express your answer in the simplest form.

Ans: $_____

---

30 Using the grid and the given line AB, draw another straight line with the following characteristics:
- parallel to AB
- twice the length of AB
- passes through C which is marked by X on the grid as shown



END OF PAPER

卍慈学校

RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2020 PRELIMINARY ASSESSMENT

MATHEMATICS
PAPER 2

Name : _____ ( )

Class : Primary 6 / _____

Date : 20 Aug 2020

17 Questions
55 Marks
Duration of Paper 2: 1 hour 30 minutes

Note:
1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this paper, you should have the following:
   (a) Page 1 to Page 13
   (b) Questions 1 to 17
6. You are allowed to use a calculator.

MARKS

	OBTAINED	POSSIBLE
PAPER 1		45
PAPER 2		55
TOTAL		100

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

(10 marks)

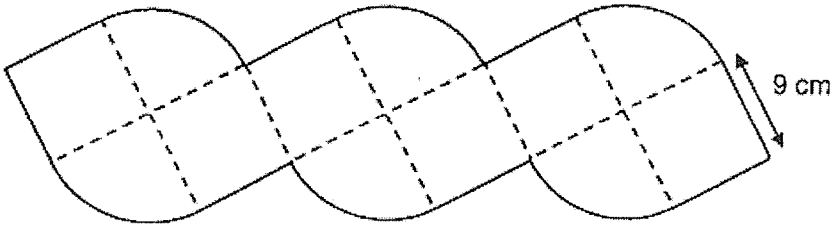
---

1 The total of 2 numbers is 43.2 and their difference is 12.8. Find the smaller number.

Ans: _____

---

2 The figure is made up similar quadrants and squares. Find the perimeter of the figure correct to 1 decimal place. Take $\pi = 3.14$.



Ans: _____ cm

---

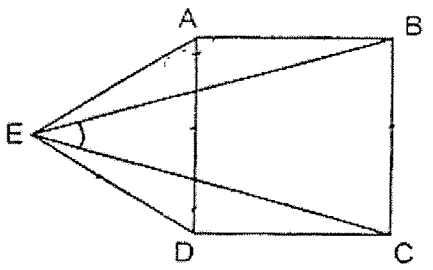
3 Study the algebraic expressions that follow a pattern below.
Find the value of w if Number 6 is 65.

Number 1	Number 2	Number 3	....	Number 6
13w + 12	11w + 10	9w + 8	....	?

Ans: _____

---

4. In the figure below, ABCD is a square and ADE is an equilateral triangle.
Find ∠BEC.



Ans: _____ °

4

5 Devi had to fill as many jugs as possible with 10 ℓ of water. The capacity of each jug is $\frac{9}{16}$ ℓ.

(a) What was the most number of jugs that could be completely filled with water?

(b) How much of the water was left over? Give your answer in litres.

Ans: (a) _____

(b) _____ ℓ

2

For Questions 6 to 17, show your workings clearly in the space below each question 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)

---

6 At a shop, Alice paid \$15.60 for a chocolate cake and 5 curry puffs. Ben paid \$26.45 for a chocolate cake and 12 curry puffs. Find the cost of 1 chocolate cake.

Ans: _____ [3]

---

7 Use all the digits 6, 2, 3 to form the number for each box below.

(a) ? minutes are smaller than 4 hours.

(b) ? minutes are closest to 5 hours.

Ans: (a) _____ [1]

(b) _____ [2]

6

8 A baker had a total of 425 tarts and cupcakes. After selling an equal number of both types, he had $\frac{1}{3}$ of the tarts and $\frac{1}{4}$ of the cupcakes left. What was the total number of tarts and cupcakes left?

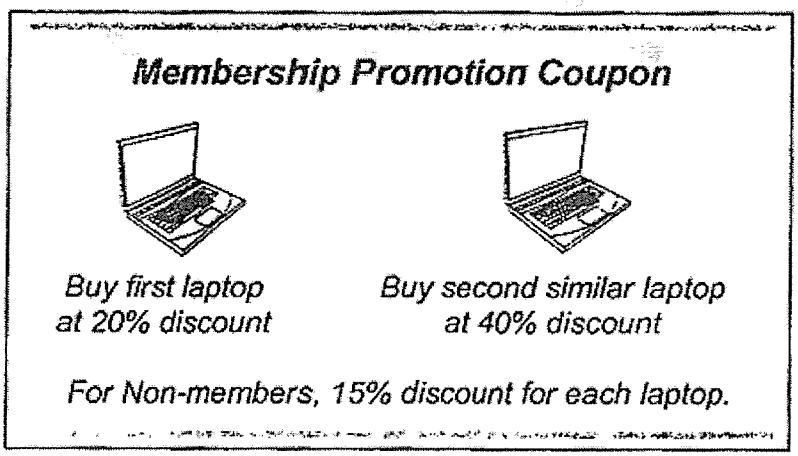
Ans: _____ [3]

---

9 Tim had some books for sale. He sold some books on Saturday. On Sunday, he sold $\frac{1}{4}$ of the remainder. After the sale, the ratio of number of books sold to the number of books left was 8 : 5. What was ratio of the number of books sold on Saturday to the number of books sold on Sunday?

Ans: _____ [3]

10

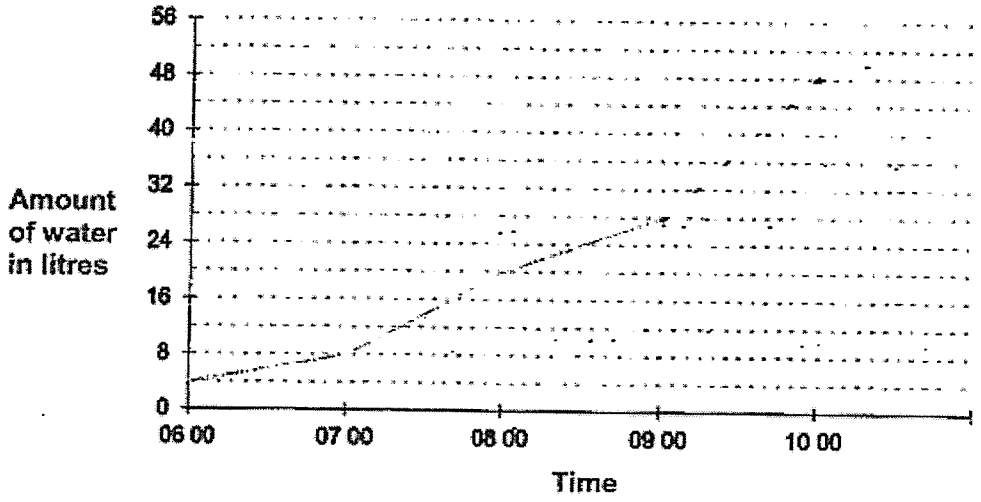


Using the membership promotion coupon, Sue paid $2940 for 2 similar laptops. How much would she have paid for 1 such laptop if she was not a member?

Ans: _____ [3]

3

11 A tank was partially filled with water at first. A tap was turned on from 06 00, and the tank was completely filled to 48 litres at 10 00. A line graph, showing the volume of water in the tank at regular intervals of time was drawn up as shown below. However, the line graph only shows the readings from 06 00 to 09 00.



(a) Complete the line graph from the 09 00 to 10 00 with a straight line. [1]

(b) What fraction of the tank was filled with water at first? Express your answer as a fraction in its simplest form.

(c) What was the percentage increase in the amount of water in the tank from 08 00 to 09 00?

Ans: (b)_____ [2]

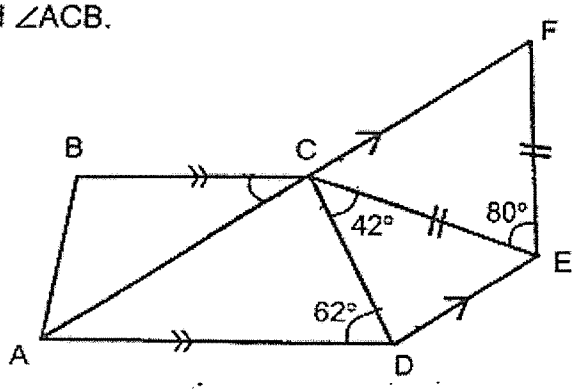
(c)_____ [2]

5

12 In the figure below, ABCD and AFED are trapeziums, CE = EF, $\angle ADC = 62°$, $\angle DCE = 42°$ and $\angle CEF = 80°$.

(a) Find $\angle ACD$.

(b) Find $\angle ACB$.



Ans: (a)_____ [2]

(b)_____ [2]

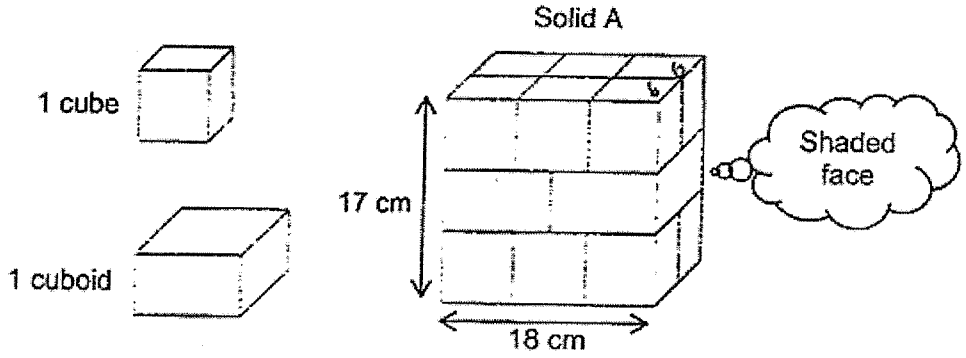
(c) Peter claims that CD is perpendicular to DE.
Do you agree with Peter? Tick Yes or No.
Name the angle that can be used to check for the answer. [1]

☐ Yes. ☐ No.

Check ∠ _____

5

13 Solid A is glued together using 2 similar cuboids and 12 identical cubes as shown.



(a) Find the total area of the shaded face as shown.

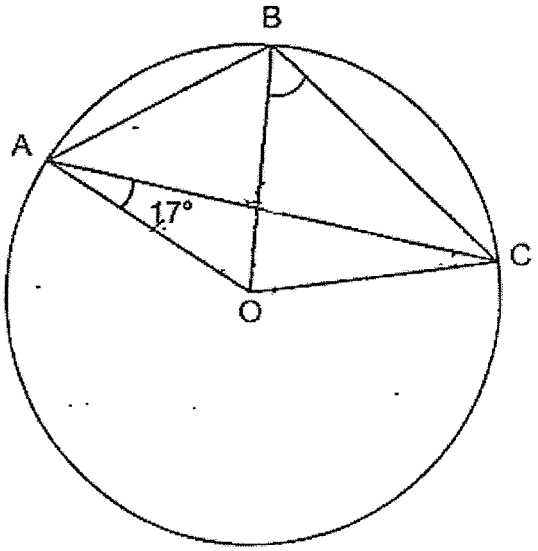
(b) Find the volume of 1 cuboid.

Ans: (a) _____ [2]

(b) _____ [2]

4

14 In the figure below, O is the centre of the circle. OAC, OAB and OBC are triangles. AB = AO and ∠OAC = 17°.

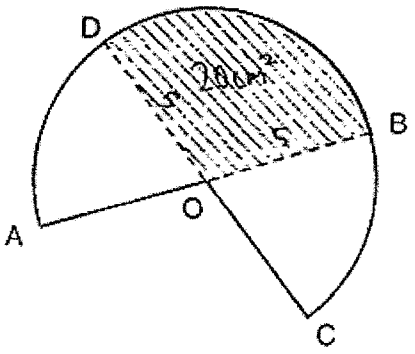


(a) Name an equilateral triangle in the given figure.
(b) Find ∠OBC.

Ans: (a) _____ [1]

(b) _____ [2]

15 The figure is formed by 2 identical semicircles overlapping each other. The radius of each semicircle is 5 cm. O is the centre of both semicircles. AOB and COD are the diameters. The area of the shaded part OBD is 20 cm^2 and the perimeter of the shaded part OBD is 18 cm.



(a) Using the calculator value of π, find the area of the figure. Correct your answer to 2 decimal places.

(b) Using $\pi = \frac{22}{7}$, find the perimeter of the figure. Give your answer as a mixed number in the simplest form.

Ans: (a) _____ [2]

(b) _____ [2]

4

16 At first, Ben had some red, blue and green marbles. During a game, he removed 54 red marbles, gave away 40% of the blue marbles and increased the green marbles by 25%. After the game, the ratio of the number of red marbles to the number of blue marbles to the number of green marbles was 3 : 1 : 5. The total number of marbles he had before and after the game was the same.

(a) What fraction of the marbles were red at first?

(b) How many green marbles had he increased during the game?

Ans: (a)_____ [2]

(b)_____ [2]

17 Farid used circles to form figures that follow a pattern. The first 4 figures are shown below.

Figure 1 Figure 2 Figure 3 Figure 4

(a) The table below shows the number of circles used for each figure. Complete the table for Figure 5 and Figure 6.

Figure Number	Number of circles used
1	13
2	18
3	21
4	26
5	
6	

[1]

(b) What is the difference in the number of circles Farid would use for Figure 10 and Figure 12?

(c) How many circles would he use for Figure 41?

Ans: (b) _____ [2]

(c) _____ [2]

END OF PAPER

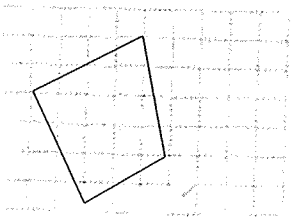
SCHOOL : RED SWASTIKA PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2020 PRELIM

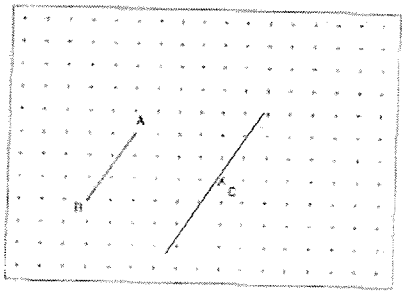
PAPER 1 BOOKLET A

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

Q 11	Q12	Q13	Q14	Q15
1	4	2	2	3

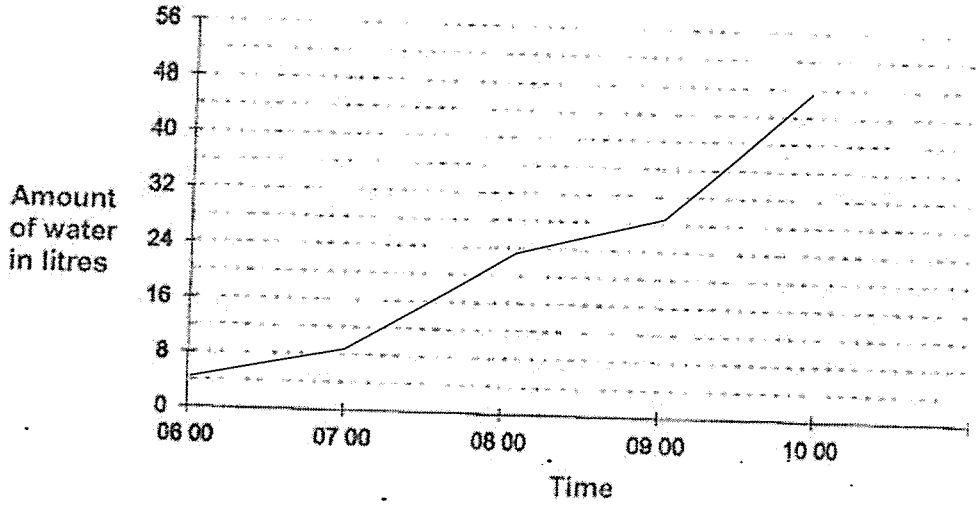
PAPER 1 BOOKLET B

Q16)	58 x 6 x 10 = 580 x 6 = 3480
Q17)	131°
Q18)	Value $2 →2 x 4 = $8 Value $4 → 5 x 5 = $25 10 + 25 + 8 = 35 + 8 = $43
Q19)	
Q20)	5min→3 x 2 = 6 Sets of 5min →90 ÷ 6 = 15 Total →15 x 5 = 75 min

Q21)	a)8 x 4 ÷2 – 1 = 16 – 1 = 15 b)20 – (3+4x2) = 20 – 1 (3+8) = 20 – 11 = 9
Q22)	$4\frac{7}{12}$
Q23)	600 x 25 = 15000 15000ml = 15ℓ
Q24)	Perimeter→8 + 8 + 8 + 8 + 5 + 5 + 5 +3 = (5x8)+5+5 = 40 + 10 = 50cm
Q25)	180 – 52 – 30 = 98 180 – 98 = 82 82 ÷ 2 = 41°
Q26)	39 x 2 = 78 44 x 3 = 132 Total→132 + 78 = 210
Q27)	12 + 14 + 10 = 36 36 ÷ 4 = 19
Q28)	$\frac{4}{5}$ →12 + 14 + 10 = 36 $\frac{5}{5}$ →$\frac{36}{4}$ x 5 = 45 $\frac{12}{45} = \frac{4}{15}$
Q29)	3 cups→3a x 3 =9a 2 plates→(a+4)x2 = 2a+8 Total→9a + 2a + 8 = $(11a + 8)
Q30)	

PAPER 2

Q1)	Small number x 2→43.2 – 12.8 = 30.4 Small number →30.4 ÷ 2 = 15.2
Q2)	156.8 cm
Q3)	3w + 2 = 65 3w →65 – 2 = 63 1w →63 ÷ 3 = 21
Q4)	AEB →(180 – 90 – 60) ÷ 2 = 15 BEC→60 – 15 – 15 = 30°
Q5)	a)17 b)$\frac{7}{16}$
Q6)	Curry puffs →26.45 – 15.60 = 10.85 →10.85÷ 7 = 1.55 5 curry puff →1.55 x 5 = 7.75 Choc→15.6 – 7.75 = $7.85
Q7)	a)236 b)326
Q8)	125
Q9)	Sold (both days) →(¾ R ÷ 5) x 8 = $\frac{24}{20}$ R Sold sat →$\frac{24}{20}$R – ¼ R = $\frac{19}{20}$ R ¼ R = $\frac{5}{20}$ R ANS: 19 : 5
Q10)	100% →4200 ÷ 2 = 2100 100 – 15 = 85 85 % →$\frac{2100}{100}$ x 85 = $1785

Q11)	 b)$\frac{4}{48} = \frac{1}{12}$ c)Diff →28 – 20 = 8 % →$\frac{8}{20}$ x 100% = 40$
Q12)	a)FCE →(180 – 80) ÷ 2 = 50 ACD →180 – 50 – 42 = 88° b)CAD →180 – 88 – 62 = 30 ACB →30° c)NO ACD
Q13)	a)18 ÷ 3 = 26 width→6 x2 = 12 shaded→12 x 17 = 204cm2 b)Height cuboid→17 – 6 – 6 = 5 Length cuboid →18 ÷2 = 9 Vol cuboid→9 x 5 x 12 = 540 cm2
Q14)	a)Triangle OAB b)AFO →180 – 17 – 60 = 103 BFC→103 AOC→180 – 17 – 17 = 146 FOC→146 – 60 = 86 OBC→(180 – 86) ÷ 2 = 47°

Q15)	a)58.54cm2 b)BD→18 – 5 – 5 = 8 2 x ½ x $\frac{22}{7}$ x 10 = $33\frac{3}{7}$ cm
Q16)	a)$\frac{10}{27}$ b)162
Q17)	a)26 + 3 = 29 29 + 5 = 34 b)3 + 5 = 8 c)41÷2 = 20 R 0.5 (20 x5) + (20 x3) + 13 = 173