

2017 SEMESTRAL ASSESSMENT 1

MATHEMATICS

Name : _____ ()

Class : Primary 4 / _____

Date : 4 May 2017

BOOKLET A

20 Questions

40 Marks

Duration of Paper : 1 hour 45 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 booklet, you should have the following:**
 - (a) Page 1 to Page 6**
 - (b) Questions 1 to 20**

Questions 1 to 20 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.

(40 marks)

1 In which of the following numbers does the digit '5' have the biggest value?

- (1) 10 521
- (2) 45 760
- (3) 60 805
- (4) 82 953

2 $35\,904 = 30\,000 + 5\,000 + \underline{\hspace{2cm}} + 4$
What is the missing number?

- (1) 9
- (2) 90
- (3) 900
- (4) 9 000

3 What is the first common multiple of 3 and 9?

- (1) 1
- (2) 9
- (3) 3
- (4) 27

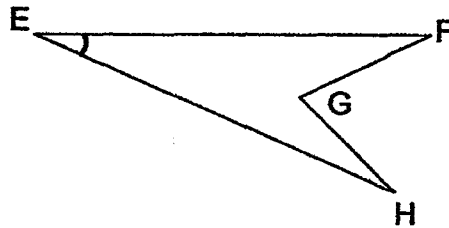
4 What is the product of 452 and 38?

- (1) 490
- (2) 4 972
- (3) 16 176
- (4) 17 176

5 Which of the following when rounded off to the nearest thousand is 70 000?

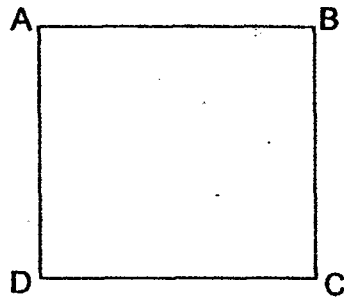
- (1) 69 499
- (2) 69 932
- (3) 70 504
- (4) 70 987

- 6 Name the marked angle.



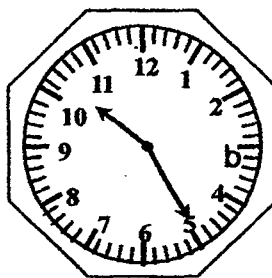
- (1) $\angle EFG$
- (2) $\angle FGH$
- (3) $\angle EHG$
- (4) $\angle FEH$

- 7 ABCD is a square. Which of the following **incorrectly** describes the square?



- (1) It has four equal sides.
- (2) It has four right angles.
- (3) Its opposite sides are equal.
- (4) It has only one pair of parallel lines.

- 8 The time shown on the clock is _____.



- (1) 25 minutes to 11
- (2) 35 minutes to 10
- (3) 5 minutes past 10
- (4) 25 minutes past 10

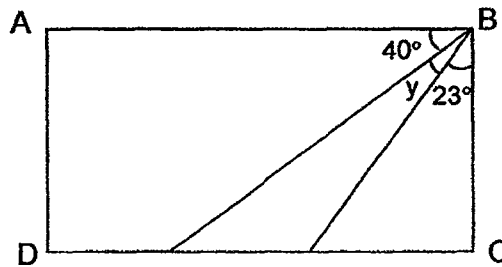
9 In 67 970, what is the difference between the two values of the digit '7'?

- (1) 70
- (2) 6 930
- (3) 7 000
- (4) 7 070

10 What is the sum of all the factors of 24?

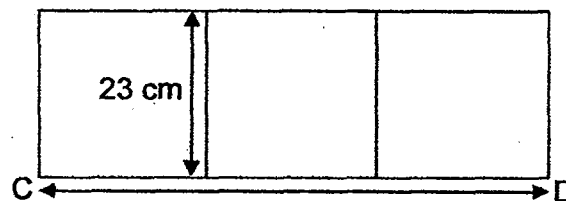
- (1) 8
- (2) 50
- (3) 60
- (4) 91

11 In the figure below, ABCD is a rectangle. Find $\angle y$.



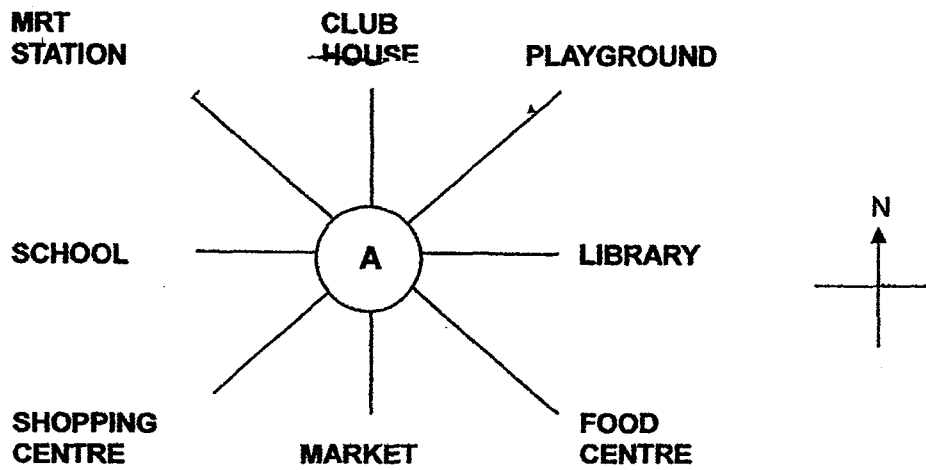
- (1) 17°
- (2) 27°
- (3) 37°
- (4) 117°

12 The figure below is made up of 3 similar squares. Find the length of CD.



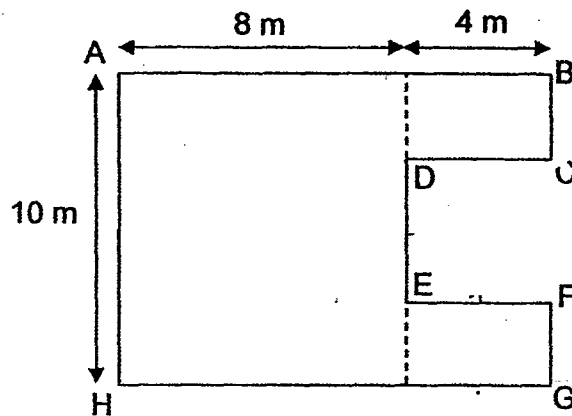
- (1) 23 cm
- (2) 69 cm
- (3) 184 cm
- (4) 230 cm

Use the following diagram to answer Questions 13 and 14.



- 13 Kelly is standing at the point marked A in the diagram above. She is facing the MRT station. Where will she be facing when she turns 90° clockwise?
- (1) Library
 - (2) Club House
 - (3) Playground
 - (4) Shopping Centre
- 14 Jonathan is standing at the point marked A in the diagram above and facing east. He makes a $\frac{3}{4}$ - turn in an anticlockwise direction. Which direction will he be facing?
- (1) north
 - (2) south
 - (3) east
 - (4) west

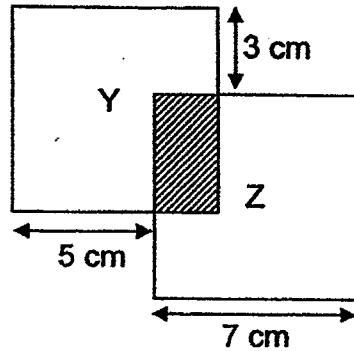
- 15 Find the perimeter of the figure. (All lines meet at right angles).



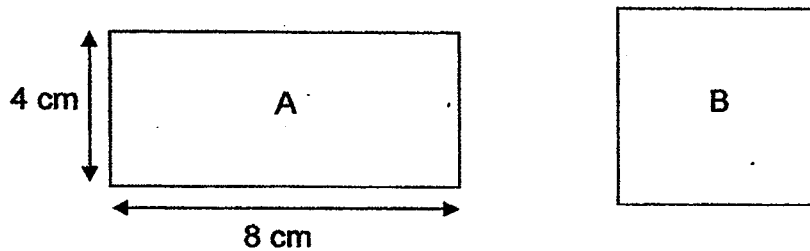
- (1) 44 m
 (2) 48 m
 (3) 52 m
 (4) 120 m
- 16 There were 2 279 more yellow marbles than blue marbles in a container. Another 487 yellow marbles and 683 blue marbles were put into the same container. How many more yellow marbles than blue marbles were there in the container in the end?
- (1) 1 596
 (2) 2 083
 (3) 2 766
 (4) 3 449
- 17 The figure is made of 7 small squares. What is the least number of small squares that must be added to make a larger square?

- (1) 5
 (2) 8
 (3) 9
 (4) 17

- 18 Y and Z are identical squares. Y overlaps Z partially as shown below. What is the perimeter of the shaded part?



- (1) 8 cm
 (2) 12 cm
 (3) 15 cm
 (4) 44 cm
- 19 Two pieces of wire of the same length are used to form Rectangle A and Square B as shown below. What is the total area of Rectangle A and Square B?



- (1) 48 cm^2
 (2) 56 cm^2
 (3) 60 cm^2
 (4) 68 cm^2
- 20 3 ℓ of water was poured into 2 empty buckets. After pouring, 1 bucket contained 90 ml more water than the other bucket. How much water was there in the other bucket?
- (1) 60 ml
 (2) 105 ml
 (3) 1 410 ml
 (4) 1 455 ml

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BOOKLET B

28 Questions

60 Marks

In this booklet, you should have the following:

(a) Page 7 to Page 16

(b) Questions 21 to 48

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		40
BOOKLET B		60
TOTAL		100

Questions 21 to 30 carry 1 mark each. Questions 31 to 40 carry 2 marks each. Show your working 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.

(30 marks)

- 21 Write fifty-three thousand and twelve in numerals.

Ans: _____

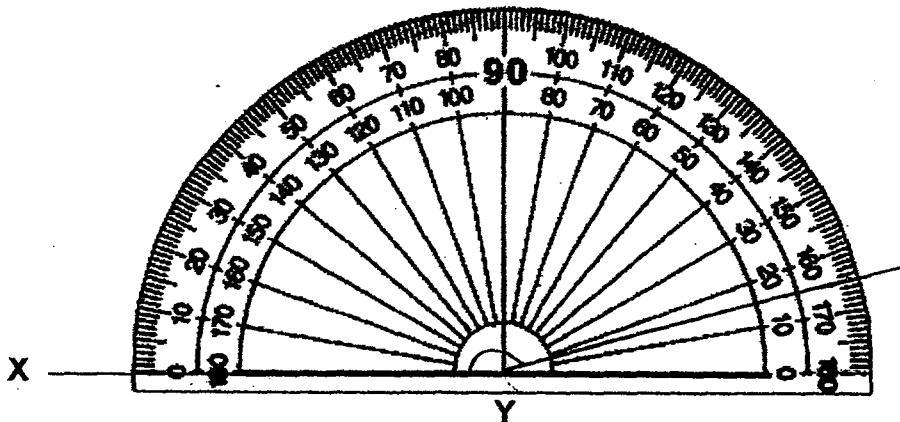
- 22 7 thousands and 380 tens is the same as _____.

Ans: _____

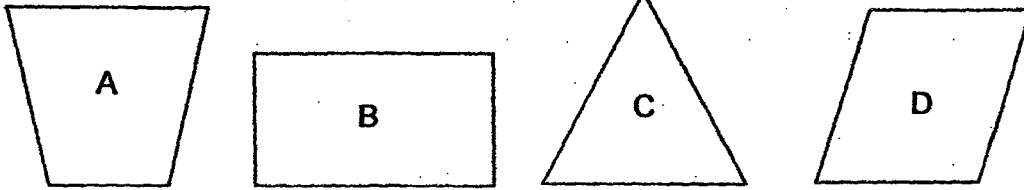
- 23 A number when rounded to the nearest hundred is 5 000. What is the smallest possible number?

Ans: _____

- 24 Use the given protractor and complete the drawing of $\angle XYZ = 165^\circ$.

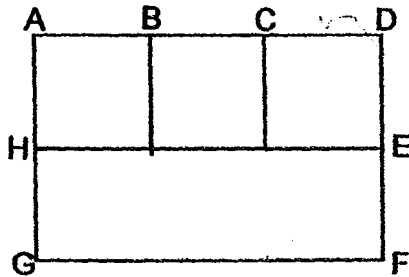


- 25 Look at the shapes below. Which is a rectangle?



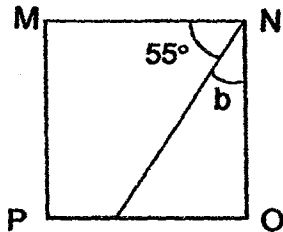
Ans: _____

- 26 The figure ADFG is made up of a rectangle and 3 squares. The perimeter of the figure is 90 cm and $DE = EF$. Find the length of BC.



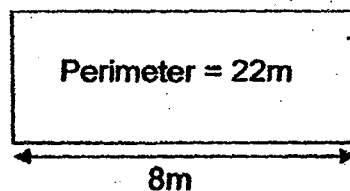
Ans: _____ cm

- 27 MNOP is a square. Find $\angle b$.

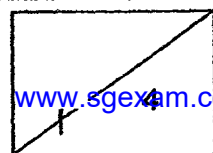


Ans: _____ °

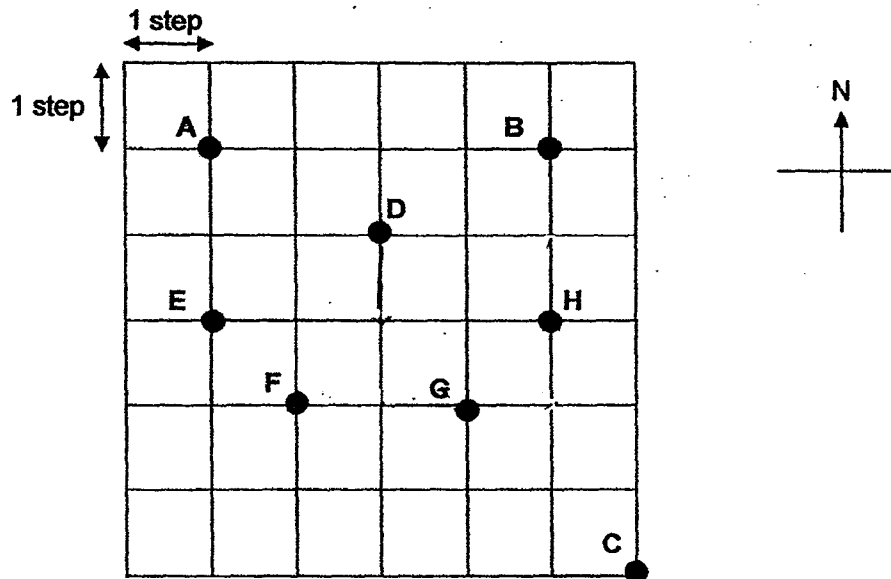
- 28 The perimeter of a rectangle carpet is 22 m. Its length is 8 m. Find its breadth.



Ans: _____ m



Study the diagram below carefully and use it to answer Questions 29 and 30.



- 29 Point B is north of Point H. Point E is _____ of Point F.

Ans: _____

- 30 Peter was at a certain position. He moved as listed below and ended up at Point D.

Move	Direction
1 st	3 steps to the south
2 nd	2 steps to the west
3 rd	2 steps to the north

What was his starting position?

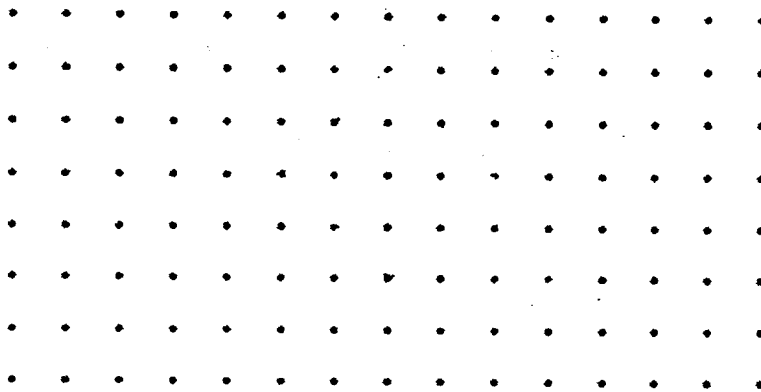
Ans: Point _____



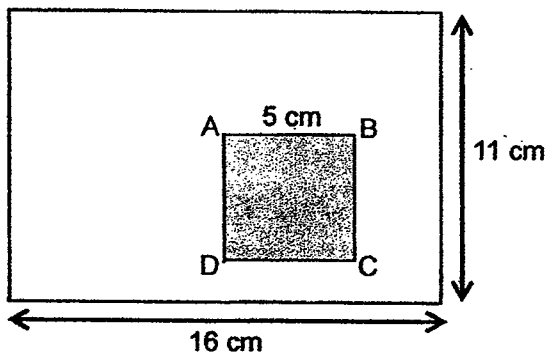
31 What is the quotient when 9 109 is divided by 9?

Ans: _____

32 Complete drawing a square with the given lines.



33 ABCD is a square of 5 cm. What is the area of the unshaded part in the figure given below?

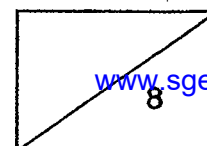


Ans: _____ cm²

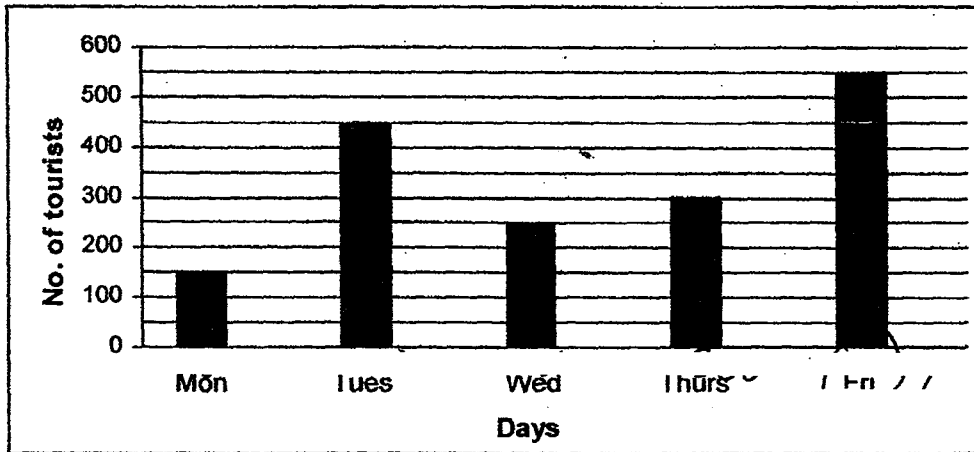
34 Complete the number pattern.

65 621, 55 520, 45 419, _____, 25 217, 15 116

Ans: _____



The bar graph below shows the number of tourists who visited the zoo from Monday to Friday.



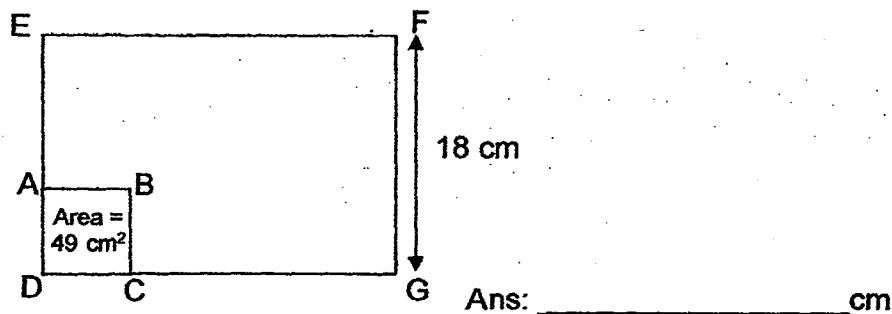
- 35 What was the total number of tourists who visited the zoo over the five days?

Ans: _____

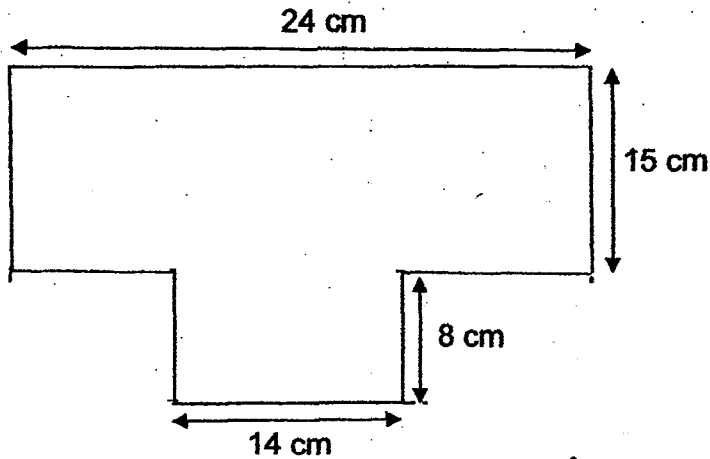
- 36 Mr Lee bought 5 similar chairs at \$475. Mr Chua bought 8 such chairs from the same shop. How much did Mr Chua pay for the 8 chairs?

Ans: \$ _____

- 37 In the figure below, EFGD is a rectangle and ABCD is a square. The area of ABCD is 49 cm^2 . Find the length of AE.



- 38 Find the area of the figure. (All lines meet at right angles.) -

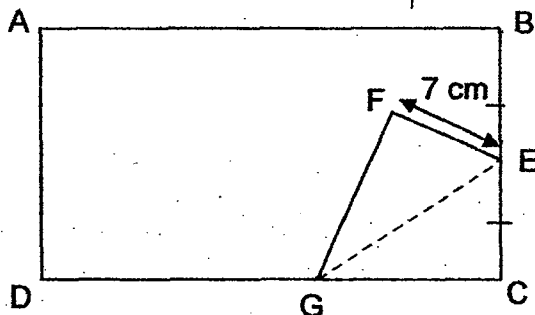


Ans: _____ cm^2

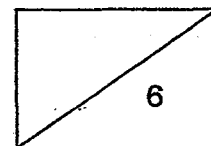
- 39 There were 40 children queuing to enter a party. Every 4th child in the queue received a gift bag and every 6th child received a balloon. How many children received both a gift bag and a balloon?

Ans: _____

- 40 A piece of wire of length 70 cm is bent into the shape of a rectangle ABCD. It is then bent upwards as shown below. BE = EC and EF is 7 cm. What is the length of AB?



Ans: _____ cm



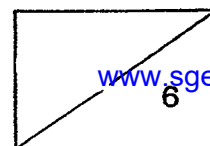
Questions 41 to 48 carry 3 or 4 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided.
(30 marks)

- 41 A school cleaner took 45 minutes to clean a classroom. If she took the same amount of time to clean each classroom, how much time did she take to clean 6 classrooms? Give your answer in h and min.

Ans: _____ [3]

- 42 Mary had 3 jugs which contained 1 l 600 ml of lemonade each. She poured all the lemonade equally into 8 glasses. What is the volume of lemonade in each glass?

_____ [3]

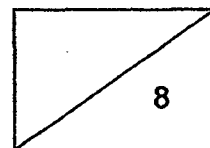


- 43 A piece of rope was 2 m long and a small piece measuring 65 cm was cut from it. The remaining rope was cut into 5 equal pieces. What is the length of each of the 5 pieces?

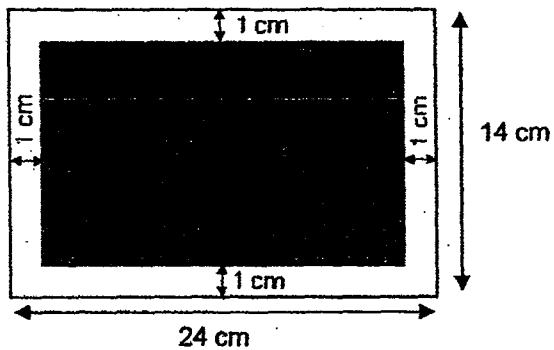
Ans: _____ [4]

- 44 Keychains are sold in boxes of 9. Each box costs \$7 and Charmaine has \$355. What is the greatest number of keychains that she can buy?

Ans: _____ [4]



- 45 The figure below shows a photo frame that measures 24 cm by 14 cm. A picture is mounted on the frame leaving a border of 1 cm around it. What is the area of the picture?



Ans: _____ [4]

- 46 Bryan and Rachel had \$220. After Bryan gave Rachel \$18, he still had \$24 more than Rachel. How much money did Rachel have at first?

Ans: _____ [4]

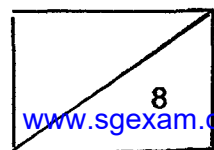
- 47 Ali, Bobby and Charles had some stickers. Ali and Bobby had a total of 6 186 stickers. Charles and Ali had a total of 3 724 stickers. Bobby had 3 times as many stickers as Charles. How many stickers did Ali have?

_____ [4]

- 48 The figure below is made up of 6 identical rectangles with no overlapping parts. The length of each rectangle is twice its breadth. Given that the breadth of each rectangle is 3 cm, find the perimeter of the figure.

Ans: _____ [4]

END.



BOOKLET A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	3	2	4	2	4	4	4	2	3
Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
2	2	3	2	3	2	3	2	4	4

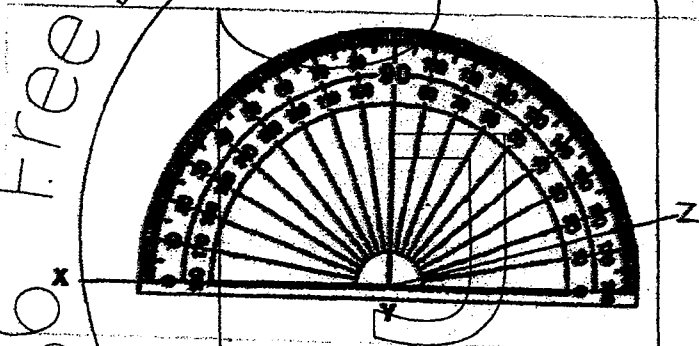
BOOKLET B

Q21. Ans: 53012

Q22. Ans: 10800

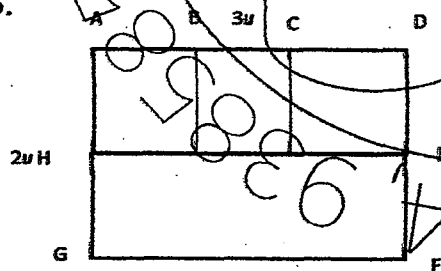
Q23. Ans: 4950

Q24.



Q25. Ans: B

Q26.



$$3 + 3 + 2 + 2 = 10u$$

$$10u = 90\text{cm}$$

$$1u = 90\text{cm} \div 10 = 9\text{cm}$$

Ans: 9cm

Q27. $90 - 55 = 35$ Ans: 35°

Q28. $22\text{m} - 8\text{m} - 8\text{m} = 6\text{cm}$

$6\text{cm} \div 2 = 3\text{cm}$

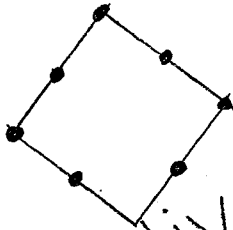
Ans : 3cm

Q29. Ans: north-west

Q30. Ans : Point B

Q31. Ans: 1012

Q32.



Q33. Area of rectangle = $10\text{cm} \times 11\text{cm}$
 $= 176\text{cm}^2$

Area of square = $5\text{cm} \times 5\text{cm}$
 $= 25\text{cm}^2$

Unshaded = $176\text{cm}^2 - 25\text{cm}^2 = 151\text{cm}^2$

Ans : 151cm^2

Q34. $65621 - 10101 = 55520$

$55520 - 10101 = 45419$

$45419 - 10101 = 35318$

Ans : 35318

Q35. $550 + 450 + 300 + 250 + 150 = 1700$

Ans : 1700

Q36. $5u = \$475$

$1u = \$475 \div 5 = \95

$8u = \$95 \times 8 = \760

Ans : \$760

Q37. $AD = \sqrt{49}$

$= 7\text{cm}$

$AE = 18\text{cm} - 7\text{cm} = 11\text{cm}$

Ans : 11cm

Q38. Area of A = $24\text{cm} \times 15\text{cm} = 360\text{cm}^2$

Area of B = $14\text{cm} \times 8\text{cm} = 112\text{cm}^2$

Area of figure = $360\text{cm}^2 + 112\text{cm}^2 = 472\text{cm}^2$

Ans : 472cm^2

Q39. Multiples of 4 : 4, 8, 12, 16, 20, 24, 28, 32, 36, 40

Multiples of 6 : 6, 12, 18, 24, 30, 36, 42

Ans : 3

Q40. FE = EC

EC = 7cm

BC = $7\text{cm} \times 2 = 14\text{cm}$

AD = 14cm

Breadth = $14\text{cm} + 14\text{cm} = 28\text{cm}$

$70 - 28 = 42$

AB = $42\text{cm} \div 2 = 21\text{cm}$

Ans: 21cm

Q41. 45 min = 1 classroom

270 min = 6 classroom

1h = 60min

2h = 120min

3h = 180min

4h = 240min

270min = 4h 30min

Ans : 4h 30min

Q42. 3 jugs = $1600\text{ml} \times 3$
= 4800ml

Vol. of lemonade in each glass

= $4800 \div 8$

= 600ml

Ans : 600ml

Q43. 2m = 200cm

$200\text{cm} - 65\text{cm} = 135\text{cm}$

Length of each piece = $135\text{cm} \div 5 = 27\text{cm}$

Ans: 27cm

Q44. $355 \div 7 = 50\text{R}5$

$50 \times 9 = 450$

Ans : 450

- Q45. Length of picture = $24\text{cm} - 2\text{cm} = 22\text{cm}$
Breadth of picture = $14\text{cm} - 2\text{cm} = 12\text{cm}$
Area of picture = $22\text{cm} \times 12\text{cm} = 264\text{cm}^2$

Ans : 264cm^2

- Q46. $\$18 + \$18 + \$24 = \60
 $2u = \$220 - \$60 = \$160$
Amount of money Rachel had at first = $\$160 \div 2 = \80

Ans : $\$80$

- Q47. $A + B = 6186$
 $A + C = 3724$
 $2u = 6186 - 3724 = 2462$
 $1u = 2462 \div 2 = 1231$
 $3u = 1231 \times 3 = 3693$
 $Ali = 6186 - 3693 = 2493$

Ans : 2493

- Q48. $11\text{cm} \times 3 = 33\text{cm}$
 $2 \times 6\text{cm} = 12\text{cm}$
Perimeter = $33\text{cm} + 12\text{cm} + 9\text{cm} = 54\text{cm}$

Ans : 54cm

END