



Grade

8

THIRD TERM TEST - 2018

Mathematics

School :

Name of the Student/ Index No :

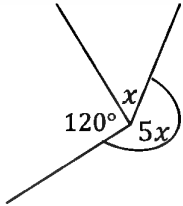
Time: 2 hrs.

Part -I

Answer all the questions on the paper itself.

1) Simplify $-2(4a - 2b + 5)$

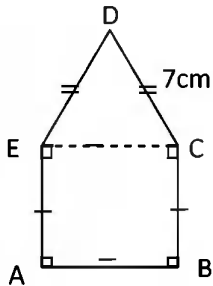
2)



Find the value of x using the given data

3) Find the value of $\frac{(-4) \times 3}{(-2)}$

4)



If the parameter of the given figure is 44cm, find the length of a side of ABCE square.

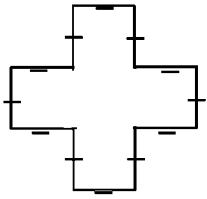
5) The sold amount of rice is 0.8t from the amount of rice 1.2 t that was brought to a shop. Find the remaining amount of rice.

6) Write the following in the ascending order.

$$(1)^{10}, (-2)^4, (-1)^7, (2)^2$$

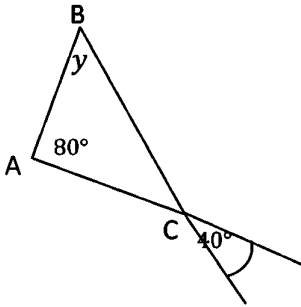
7) When a square shape paper is folded into 4 equal parts, the length of a side is 4 cm. When it is unfolded, find the area of the square.

8)



Write the order of rotational symmetry of the figure.

9)



Find the value of y .

10) Find the value of reciprocal of 3 is multiplied by 9.3

11) If $23 \times 12 = 27$ find the value of 2.3×1.2

12) Some ripe mangoes were divided among Tashmi and Tishan at the ratio of 3:2 . If Tashmi got 4 mangoes than Tishan what is the total number of mangoes divided.

13) If the general term of the number pattern is $4n + 1$, find its 19th term.

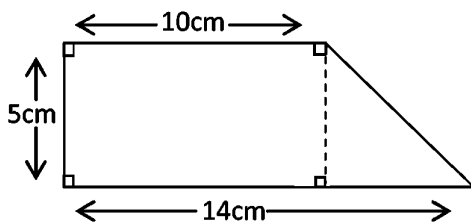
14) If the time in a certain country is 14:30 in (+6) time zone, find the time in another country in (+2) time zone.

15) The price of 1kg of tea leaves is Rs.180 .If the price goes up in 10% , find the new price.

16) If $A = \{ 2, 4, 6, 8 \}$ fill in the blank with the suitable symbol \in or \notin .

5.....A

17)

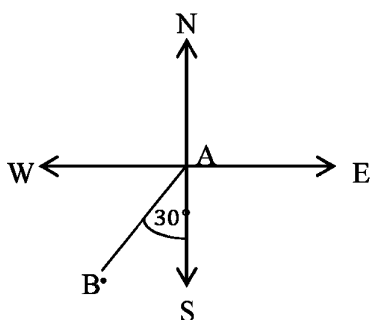


Find the area of the given composite plane figure.

18) If an interior angle of a regular polygon is 70° explain whether that can be used to prepare a regular tessellation.

19) The regular tetrahedron that was numbered from 1 to 4 is rolled once. Write the probability of getting an odd number marked on the base of it.

20)



Write the location of B from A

Part B

Answer 5 questions including the question 1.

- 1) These are information gathered on a data collection done to introduce a new variety of brinjal harvest. Given below are the number of brinjals includes in 1kg which were brought by 30 farmers on a certain day.

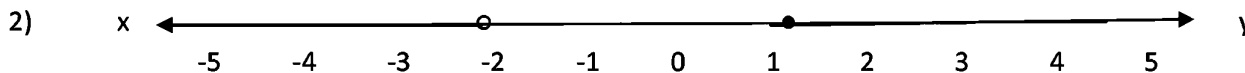
17 41 32 20 20 33 43 44 47 50

18 33 36 37 48 49 51 19 52 53

49 33 38 34 25 19 26 27 24 42

- i. Represent the above information in a stem –leaf diagram. (5 marks)
- ii. Write 2 instances where you have collected above type of information in your class. (1mark)
- iii. Using the above data find,
 - a. Maximum and minimum value (2marks)
 - b. The range. (1mark)
 - c. The mode of the data. (1 mark)
 - d. The median. (1 mark)
- iv. Find the percentage of the number of brinjals in 1kg is 20 or less than 20 from the whole kilograms. (2 marks)
- v. Find the median of the following group. (3 marks)

5 7 7 8 9 11 13 14 18 18



- i. Write an algebraic inequality of the above inequality represented on the number line. (2 marks)
- ii. Write an integral value that is not included in the above2 inequalities. (2 marks)
- iii. Draw a co-ordinate plane taking values from -6 to + 6 for x and y axes. Mark the following points on it and join them respectively. (4 marks)

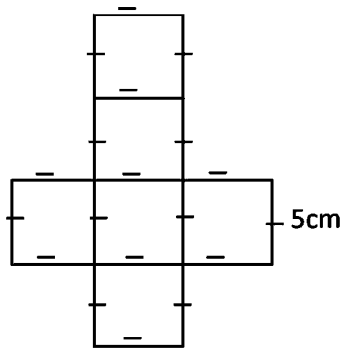
A=(0,6) B=(2,2) C=(6,0) D= (2,-2) E= (0,-6) F= (-2,-2)

G= (-6,0) H=(-2,2) I=(0,6)

- iv. How many axes of symmetry are in the closed figure which has been gained by joining the points above? (2 marks)
- v. Write the co-ordinate of the point where the axes are intersected above. (1 mark)

- 3) a)
- I. Construct the isosceles triangle ABC when $AB=6\text{cm}$ $BC=4.8\text{cm}$ $AC=4.8\text{cm}$ (03 marks)
 - II. Construct the triangle ABE taking AB as one side of it and $AE=4.8\text{cm}$ and $BE=4.8\text{cm}$ as it locates opposite to E, C (02 marks)
 - III. Write the special name that can be given to the geometrical figure ACBE. (01mark)
- b) Imagine the figure you have drawn above is a scale diagram of a flower bed and it is drawn to the scale of 1:500 ,
- I. Find the real length of the flower bed (2 marks)
 - II. Is a 100m length wire is sufficient to lie around the flower bed? Explain your answer giving reasons (2 marks)

4)



Following is net used to make a solid object.

- I. Write the name of the solid object that can be made out of it. (02 marks)
 - II. Write the edges, faces and vertices separately. Show that the above values satisfy Euler's relationship. (03marks)
 - III. Ruwani says that the total surface area of the solid object is 150cm^2 . Explain whether it is true or false. (03marks)
 - IV. Find the volume of the solid object in liters. (03marks)
- 5)a) Kavecha travelled a $\frac{1}{2}$ of his journey by bus a $\frac{1}{4}$ by bicycle and the remaining portion on foot.
- I. What fraction of the journey did he travelled by both bus and bicycle? (02 marks)
 - II. What fraction of the journey did he travel on foot? (02marks)
 - III. If he travelled 2km on foot, find the total distance of the journey. (02marks)
- b). 1. When 5 is added to the thrice of the number denoted by "a" and the result is 17, build up an equation of this information. (02 marks)
- II. Find the value of "a" solving the equation. (3 marks)

6)a) $A = \{\text{Triangular numbers between 0 and 25}\}$

I. Write all the elements of the set in double brackets. (02 marks)

II. Write the value of $n(A)$. (01 mark)

III. Write an example for a Null set. (02 marks)

b) The mass of a box with biscuits is 2.225 kg. The mass of the empty box is 75g.

I. Find the mass of biscuits. (02 marks)

II. If there are 50 same biscuits in the box find the mass of one biscuit. (02 marks)

III. A vendor sells a box of biscuits for Rs. 800 buying one box for Rs. 750. When he sold all the boxes of biscuits, find his profit. (02 marks)