



Army Public School, Panagarh

Worksheet -2019-2020

Class:VIII

Sub : Maths

Section A

1. Choose the correct option

- a. If 'A' can finish a work in 'n' days then part of a work finished in 1 day is:
- i. $1 - n$ ii. $n - 1$ iii. $\frac{1}{n}$ iv. $n + 1$
- b. Which of the following is the remainder when $z(5z^2 - 80)$ is divided by $5z(z - 4)$
- i. $z + 4$ ii. $z - 4$ iii. 5 iv. 0
- c. Which of the following points lies on y - axis
- i. $(-4, 0)$ ii. $(4, 0)$ iii. $(0, -4)$ iv. $(4, -4)$
- d. Which of the following is the value of $\{[(-1)^{-1}]^{-1}\}^{-1}$?
- i. 0 ii. -1 iii. 1 iv. undefined
- e. If base area of a room 12 m^2 and height is 3 m then its volume is
- i. 4 m^3 ii. 36 m^3 iii. 12 m^3 iv. 18 m^3

2. Fill in the blanks

- a. The x-coordinate of a point is also called its -----
- b. 1 litre = ----- cm^3
- c. ----- means taking a term from one side of an equation to the other side with its sign changed.
- d. $(b - 7)^2 =$ -----
- e. The next number of the series 0,1,1,2,3,5,8,13,----- is ----- .

3. Write true or false for the following statements and rewrite the correct statement for the incorrect one

- a. If x and y are in 'inverse variation' then xy is a constant
- b. HCF of $6x^2y^2$ and $8xy^3$ is $2xy^2$.
- c. $X^3 - 225x = x(1 - 15x)(1 - 15x)$
- d. Surface area of a cube = $6 \times (\text{side})^2$

Section B

4. Answer the following questions:

- a. Solve: $\frac{3}{2}x - \frac{7}{2} = 5x + 14$
- b. Simplify: $(m^2 - n^2m)^2 + 2m^3n^2$
- c. Add : $7xy + 5yz - 3zx$; $4yz + 9zx - 4y$ and $-3xz + 5x - 2xy$
- d. Using identity evaluate 71^2
- e. The area of a rhombus and that of a square are equal. The side of the square is 6cm. if one of the diagonal of the rhombus is 4 cm, then find the length of its other diagonal.
- f. Simplify: $(-5)^{-3} \times (-4)^{-3} \times (5)^3$
- g. Express in standard form: 0.00000023

- h. In a PG House, the food provision for 20 persons is for 10 days. How long would the food provision last if there were 5 more persons in that PG house?
- i. Factorise: i. $9x^2y^2 - 16$
ii. $a^4 - b^4$
- j. Divide : $96abc(3a - 12)(5b - 30) \div 144(a - 4)(b - 6)$
- k. Factorise : $3y^2 + 9y + 6$
- l. If $27x$ is a multiple of 3 and x is a digit then find the value of x .

Section C

5. **Answer the following questions:**
- a. One of the two digits of a two digit number is three times the other digit. If you interchange the digits of this two digit number and add the resulting number to the original you get 88. What is the original number?
 - b. Show that $(3x + 7)^2 - 84x = (3x - 7)^2$
 - c. Using a suitable identity to get the product : $(3x - \frac{1}{3})(3x - \frac{1}{3})$
 - d. An aquarium is in the form of a cuboid whose external measures are 80 cm x 30 cm x 40 cm. the base side faces and back faces are to be covered with a coloured paper. Find the area of the paper needed.
 - e. The principal sanctioned a certain amount to the librarian to purchase some mathematics books for the school library. She could buy 80 books costing Rs 90 each from the local book seller. Then she approached to the publisher who offered her 20% discount. Find the number of copies of mathematics books which she could buy from the publisher for the sanctioned money.
 - f. Draw a graph of ΔPQR , the coordinates of whose vertices are P (9,5), Q(7, 7) and R (9,9).