

JASWANT MODERN SR. SEC. SCHOOL VIII (WORKSHEET-1) SUB- MATHEMATICS (WINTER BREAK) 2023

1. PRACTICE ALL THE EXERCISES GIVEN IN YOUR BOOKS FIRST AND THEN ATTEMPT THE WORKSHEET.

- Add i. $3a-4b, 2a+3b-8c, a-6b+c$ ii. $6p+4q-r+3, 2r-5p-6, 11q-7p+2r-1$ and $2q-3r+4$
- Find the product i. $(x+6)(x+6)$ ii. $(7x+11y)(7x-11y)$ iii. $(1/x + 1/y)(1/x - 1/y)$
- Expand i. $(8a+3b)^2$ ii. $(2x-5y)^2$ iii. $(\frac{2}{7}x - \frac{1}{3}y)^2$ iv. $(-\frac{1}{3} + \frac{1}{5})^2$
- Factorise: i. $16a^2-24ab$ ii. $16(2p-3q)^2-4(2p-3q)$ iii. $ar+br+at+bt$ iv. X^3-3x^2+x-3
v. $4a^2-9$ vi. $16x^5-144x^3$ vii. $(3x-4y)^2-25z^2$ viii. $36a^2+36a+9$
ix. $x^2+14x+49$ x. $9y^2-12y+4$ xi. $7y^2-19y-6$ xii. $X^2+x-132$ xiii. X^2+5x+6
- Four -fifths of a number is 10 more than two-thirds of the number . Find the number.
- Three numbers are in the ratio of 4:5:6 . If the sum of largest and smallest equals the sum of the third and 55 , find the number.
- Find three consecutive odd numbers whose sum is 147.
- The sum of the digits of a two-digit number is 12 . If the new number formed by reversing the digits is greater than the original number by 54 ,find the original number .Check your solution.
- In a fraction , twice the numerator is 2 more than the denominator. If 3 is added to the numerator and to the denominator , the new fraction $2\frac{2}{3}$.Find the original fraction.
- Rakhi's mother is four times as old as Rakhi. After 5 years , her mother will be three times as old as she will be then. Find their present ages.
- If 16% of a number is 72 , find the number.
- Amit was given an increment of 20% on his salary . If his new salary is Rs. 15300 , what was his salary before the increment .
- The number of bed-sheets manufactured by a factory during five consecutive weeks is given below. Draw a bar graph to represent the data.

Week	First	Second	Third	Fourth	Fifth
No. of Bed Sheets	600	850	700	300	900

- In a Zoological park there are 1000 creatures as per the following table. Draw a pie chart to represent the data.

Beast Animals	Other Land Animals	Birds	Water Animals	Reptiles
150	400	225	175	50

- Solve:** i. $\frac{2}{3}x + 1 = \frac{7}{3}$ ii. $2\frac{3}{5}x - \frac{2}{5} = \frac{3}{5}$ iii. $\frac{1}{13}x + 5 = \frac{2}{13}$

- The perimeter of a rectangle is 13 cm and its width is $2\frac{3}{4}$ cm. Find its length in cm**

- A number consists of two digits whose sum is 9. If 9 is added to the number its digits are inter changed. Find the number.

- The sum of the two number is 5 and difference of their squares is 5. Find the difference of the numbers?

- The sum of four consecutive natural numbers is 166. What are the numbers?

- Construct a histogram for the following frequency distribution:

Height	101-110	111-120	121-130	131-140	141-150
No. of Children	35	24	27	38	22