

**Term-II**

**Mathematics**

**Ratio and Proportion & Algebraic Equations**

**Marks:30**

1. Find the ratio of the following in the simplest form.

a. 75 to 90

b. 36 to 144

1. Find the ratio of the following: a. 3.5 m to 140 cm

a. 2 km to 720 m

b. 25 paise to 3.25

1. The monthly income of Somesh is ₹32,000. He pays ₹15,000 as monthly instalment of the housing loan and saves ₹5000 in his provident fund account. Find the ratio of the

a. monthly income to the monthly instalment of housing loan.

b. monthly income to the monthly savings.

1. The cost of 10 notebooks is ₹330 and the cost of 2 pens is ₹44. Find the ratio of the cost of a notebook to the cost of a pen.
2. There are 135 supervisors for 1080 workers in a factory. Find the ratio of the number of supervisors to the number of workers.
3. Find x in each of the following proportions.

a. 3:6:: 15: x

b. 11:14:: x:56

1. Divide 30 chocolates between Ammu and Shaila in the ratio 2:3.
2. Sandeep pays 5200 as rent for four months for a room in a lodge. How much amount

does he have to pay for 2 ½ years ?

1. A carpenter earns ₹2975 in a week.

a. Find his earnings in 12 days.

b. For how many days does he have to work to earn ₹8500?

1. $x+\frac{1}{4}=1 $
2. $\frac{3x}{7}=\frac{12}{49}$ ; $x+9=18$
3. The cost of 5 bottles of mineral water is ₹70. How much should one pay to buy 12 crates of 24 mineral water bottles each?
4. A pipe can fill 300 L of water in a tank in 2 minutes. Find the quantity of water it can fill in 30 minutes.
5. It takes 3 hours for a tailor to stitch 2 pairs of uniform. How long does it take to stitch 12 pairs of uniform?
6. A car travels 80 km in 2 ½ hours. Find the distance travelled by the car in 6 hours.