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LINEAR EQUATIONS
ASSIGNMENT NO. 2

1. Seema is now years older than Beena. In 10 years, Seema will be twice as old as Beena was 10 years ago. Find their present ages. (Seema - 48, Beena - 39)
2. The difference between tow angles is $20^{\circ}$. If these angles are complementary, find the angles. $\left(35^{0}, 55^{0}\right)$
3. The length of a rectangle is 8 cm more than its width. If the perimeter of the rectangle is 44 cm , find the length and breadth of the rectangle.
4. The altitude of a triangle is two - third the length of its corresponding base. If the altitude is increased by 4 cm and the base decreased by 2 cm , the area of the triangle remains the same. Find the base and the altitude of the triangle. (base $=3 \mathrm{~cm}$, altitude $=2 \mathrm{~cm}$ )
5. Two angles of a triangle are in the ratio 1:2. If the sum of the angles is equal to the third angle, find the angles of the triangle. What type of triangle is it? Also classify the triangle as acute, right, scalene, isosceles or equilateral. $\left(30^{\circ}, 60^{\circ}, 90^{\circ}\right.$, scalene right triangle)
6. The distance between two stations A and B is 250 km . Two trains start simultaneously from A and B in opposite directions. The distance between them after $2 \frac{1}{2}$ hours is 25 km . If the speed of one train is $10 \mathrm{~km} / \mathrm{h}$ more than the other, find the speed of each of the trains. $\quad(40,50)$
7. A man leaves $\frac{1}{2}$ of his property to his wife, $\frac{1}{3}$ to his son and the remaining to his daughter. If the daughter's share is Rs. 5,000 , how much money did the man leave? How much money did his wife get? What is his son's share? (money left = Rs. 30,000, wife's share $=$ Rs. 15,000 , son's share $=$ Rs. 10,000 )
8. Divide 150 into three parts such that the second number is five sixth of the first and third number is four fifth of the second. (60, 50, 40)
9. In an auditorium, 300 tickets were sold. The total sale of tickets was Rs. 1250. If the tickets were of two denominations of Rs. 2.50 and Rs. 5.00, how many tickets of each denomination were sold? ( 100 of Rs. 2.50 and 200 of Rs. 5)
10. The volume of brass piece is twice that of an aluminium piece. The total weight of both the pieces is 1280 grams. If the weight of 1 cubic cm . of Aluminium is 7.8 gm and that of brass is 8.9 gm , find the volume of each piece. (aluminium $50 \mathrm{cu} . \mathrm{cm}$, brass $100 \mathrm{cu} . \mathrm{cm}$ )
