
$$(3\alpha + 1)x + 3y - 2 = 0, (\alpha^2 + 1)x + (\alpha - 2)y - 5 = 0$$

8. Solve for x and y: $ax + by = a - b$ and $bx - ay = a + b$ [2]
9. Draw the graph of $x + 2y - 7 = 0$ and $2x - y - 4 = 0$. [3]
Shade the area bounded by these lines and y-axis.
10. A two-digit number is obtained by either multiplying the sum of the digits by 8 and adding 1 or by multiplying number. How many such numbers are there? [3]
11. A leading library has a fixed charge for the first three days and an additional charge for each day thereafter Sarika paid Rs. 27 for a book kept for seven days, while Sury paid Rs. 21 for the book she kept for five days, find the fixed charge and the charge for each extra day. [3]
12. If 2 is added to the numerator of a fraction, it reduces to $\frac{1}{2}$ and if 1 is subtracted from the denominator, it reduces to $\frac{1}{3}$. Find the fraction. [3]
13. Abdul travelled 300 km by train and 200 km by taxi, it took him 5 hours 30 minutes. But if he travels 260 km by train and 240 km by taxi he takes 6 minute longer. Find the speed of the train and that of the taxi. [5]
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