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Cool! I'am really happy

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My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

Mathematics
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(Chapter 3) (Pair of Linear Equations in two variables)
(Class 10)

Question 3:
Solve the following pair of linear equations by the substitution and cross-multiplication methods:

$$\begin{aligned} 8x + 5y &= 9 & \text{---(1)} \\ 3x + 2y &= 4 & \text{---(2)} \end{aligned}$$

Answer 3:
Substitution method:
From equation (1), we get
 $y = \frac{9-8x}{5}$ ---(3)
Putting the value of y in equation (2), we get
 $3x + 2\left(\frac{9-8x}{5}\right) = 4$
 $\Rightarrow 15x + 18 - 16x = 20$
 $\Rightarrow -x = 2 \Rightarrow x = -2$
Putting the value of x in equation (3), we get
 $y = \frac{9-8(-2)}{5} = 5$
Hence, $x = -2$ and $y = 5$.

Cross-multiplication method:
 $8x + 5y - 9 = 0$ ---(1)
 $3x + 2y - 4 = 0$ ---(2)

By cross-multiplication method,
 $\frac{x}{\begin{vmatrix} 5 & -9 \\ 2 & -4 \end{vmatrix}} = \frac{y}{\begin{vmatrix} 8 & -9 \\ 3 & -4 \end{vmatrix}} = \frac{1}{\begin{vmatrix} 8 & 5 \\ 3 & 2 \end{vmatrix}}$
 $\Rightarrow \frac{x}{5(-4) - 2(-9)} = \frac{y}{(8)(-4) - (-4)(8)} = \frac{1}{8 \times 2 - 3 \times 5}$
 $\Rightarrow \frac{x}{-20 + 18} = \frac{y}{-32 + 32} = \frac{1}{16 - 15}$
 $\Rightarrow x = -2$ and $y = 5$.
Hence, $x = -2$ and $y = 5$.

Question 4:
Form the pair of linear equations in the following problems and find their solutions (if they exist) by any algebraic method:
(i) A part of monthly hostel charges is fixed and the remaining depends on the number of days one has taken food in the mess. When a student A takes food for 20 days she has to pay ₹1000 as hostel charges whereas a student B, who takes food for 26 days, pays ₹1100 as hostel charges. Find the fixed charges and the cost of food per day.
(ii) A fraction becomes $\frac{1}{2}$ when 1 is subtracted from the numerator and it becomes $\frac{2}{3}$ when 8 is added to its denominator. Find the fraction.

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Chapter3 Exercise Solution