EduSahara™ Assignment

Name : Simultaneous Equations

Chapter : Linear Equations and Simultaneous Linear Equations

Grade : ICSE Grade IX

1. Solve $\begin{matrix}(14x-13y+9) &= 0\\ (16x-14y+18) &= 0\end{matrix}$

(i) $(-7,-9)$ (ii) $(-8,-9)$ (iii) $(-9,-10)$ (iv) $(-9,-11)$ (v) $(-9,-9)$

2. Solve $\begin{matrix}(5x-2y+1) &= 0\\ (3x+2y-3) &= 0\end{matrix}$

(i) $(\frac{1}{4},\frac{9}{8})$ (ii) $(\frac{1}{6},\frac{7}{6})$ (iii) $(\frac{1}{6},\frac{9}{8})$ (iv) $(\frac{3}{4},\frac{7}{6})$ (v) $(\frac{3}{4},\frac{7}{8})$

3. Solve $\begin{matrix}(-4x+2y-5) &= 1\\ (-4x+4y+1) &= 0\end{matrix}$

(i) $((\frac{-19}{6}),-4)$ (ii) $((\frac{-13}{4}),(\frac{-7}{2}))$ (iii) $((\frac{-11}{4}),-4)$ (iv) $((\frac{-11}{4}),(\frac{-9}{2}))$ (v) $((\frac{-19}{6}),(\frac{-7}{2}))$

4. Solve $\begin{matrix}(2x+4y-1) &= (-4x-3y+2)\\ (-4x+5y) &= (-5x-y-5)\end{matrix}$

(i) $(\frac{55}{29},(\frac{-35}{29}))$ (ii) $(\frac{55}{29},(\frac{-31}{27}))$ (iii) $(\frac{53}{29},(\frac{-33}{29}))$ (iv) $(\frac{55}{31},(\frac{-33}{29}))$ (v) $(\frac{55}{31},(\frac{-31}{27}))$

5. Solve the following pair of equations :

$$-\frac{11}{x}-\frac{2}{y}=(-62)$$

$$-\frac{14}{x}+\frac{13}{y}=61$$

(i) $(\frac{1}{4},\frac{1}{9})$ (ii) $(\frac{1}{6},\frac{1}{9})$ (iii) $(\frac{3}{4},\frac{1}{9})$ (iv) $(\frac{1}{4},\frac{1}{7})$ (v) $(\frac{1}{4},(\frac{-1}{9}))$

6. Solve the following pair of equations :

$$7x+\frac{11}{y}=46$$

$$5x-\frac{2}{y}=23$$

(i) $(7,\frac{1}{1})$ (ii) $(5,0)$ (iii) $(5,\frac{1}{1})$ (iv) $(5,-1)$ (v) $(6,\frac{1}{1})$

Solve the following pair of equations :

7. $\frac{1}{x} - 7y = 22$

$\frac{4}{x} - 12y = 24$

(i) $(\frac{-1}{4}, -4)$ (ii) $(\frac{-1}{2}, -4)$ (iii) $(\frac{-1}{6}, -7)$ (iv) $(\frac{-1}{6}, -5)$ (v) $(\frac{-1}{6}, -4)$

Solve the following pair of equations :

8. $\frac{4}{(x+y)} + \frac{14}{(x-y)} = 48$

$\frac{6}{(x+y)} - \frac{3}{(x-y)} = 24$

(i) $(\frac{7}{20}, (\frac{-3}{20}))$ (ii) $(\frac{7}{20}, (\frac{-1}{6}))$ (iii) $(\frac{7}{22}, (\frac{-3}{20}))$ (iv) $(\frac{9}{20}, (\frac{-3}{20}))$ (v) $(\frac{7}{20}, (\frac{-1}{4}))$

Solve the following pair of equations :

9. $\frac{5}{(3x+y)} + \frac{5}{(3x-y)} = 20$

$\frac{12}{(3x+y)} + \frac{11}{(3x-y)} = 51$

(i) $(\frac{-2}{63}, \frac{1}{7})$ (ii) $(\frac{-2}{63}, \frac{5}{21})$ (iii) $(0, \frac{5}{21})$ (iv) $(\frac{-2}{65}, \frac{5}{21})$ (v) $(\frac{-2}{63}, \frac{5}{19})$

Solve the following pair of equations :

10. $\frac{9}{(x+3)} - \frac{7}{(y+2)} = 16$

$\frac{3}{(x+3)} + \frac{6}{(y+2)} = (-3)$

(i) $(-2, -2)$ (ii) $(-2, -1)$ (iii) $(-2, -3)$ (iv) $(3, -3)$ (v) $(1, -3)$

Solve the following pair of equations :

11. $(-9x-15y) = 48xy$

$(-17x-13y) = (-32xy)$

(i) $(\frac{-1}{8}, \frac{1}{8})$ (ii) $(\frac{-1}{8}, \frac{1}{6})$ (iii) $(\frac{-1}{8}, \frac{-1}{8})$ (iv) $(\frac{-3}{8}, \frac{1}{8})$ (v) $(\frac{-1}{6}, \frac{1}{8})$

12. Solve the following pair of equations :

$$\frac{(-3x+6y)}{xy}=39$$

$$\frac{(5x+10y)}{xy}=35$$

(i) $(\frac{3}{5},(\frac{-1}{3}))$ (ii) $(\frac{1}{5},(\frac{-1}{5}))$ (iii) $(\frac{1}{7},(\frac{-1}{3}))$ (iv) $(\frac{1}{5},\frac{1}{3})$ (v) $(\frac{1}{5},(\frac{-1}{3}))$

13. Solve the following pair of equations :

$$\frac{2}{\sqrt{x}}-\frac{6}{\sqrt{y}}=10$$

$$\frac{4}{\sqrt{x}}-\frac{2}{\sqrt{y}}=-20$$

(i) $(\frac{1}{49},\frac{1}{14})$ (ii) $(\frac{1}{49},\frac{1}{16})$ (iii) $(\frac{3}{49},\frac{1}{16})$ (iv) $(\frac{1}{51},\frac{1}{16})$ (v) $(\frac{1}{49},(\frac{-1}{16}))$

Assignment Key

1) (v)	2) (i)	3) (ii)	4) (iii)	5) (i)	6) (iii)
7) (v)	8) (i)	9) (ii)	10) (iii)	11) (i)	12) (v)
13) (ii)					