

Student Name: _____

Score: _____

Determinants – Cramer’s Rule

Three Variables: DS2

Solve the following system of equation using Cramer’s rule:

$$\frac{3}{2}x + \frac{4}{7}y - \frac{3}{4}z = \frac{37}{14}$$

$$-x + \frac{1}{3}y - \frac{z}{2} = \frac{23}{3}$$

$$-\frac{3}{2}x + \frac{2}{3}y + z = -\frac{13}{6}$$

$$\Delta = \boxed{}$$

$$\Delta x = \boxed{}$$

$$\Delta y = \boxed{}$$

$$\Delta z = \boxed{}$$

$$\frac{3}{7}x - \frac{y}{6} + \frac{3}{4}z = -\frac{25}{2}$$

$$4x - \frac{y}{3} - \frac{z}{4} = -26$$

$$-2x + \frac{4}{3}y + \frac{5}{3}z = -2$$

$$\Delta = \boxed{}$$

$$x = \boxed{}$$

$$y = \boxed{}$$

$$z = \boxed{}$$

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com

$$\frac{3}{5}x - \frac{1}{2}y + \frac{4}{3}z = 1$$

$$\frac{2}{3}x + \frac{1}{3}y + \frac{3}{2}z = 1$$

$$\frac{6}{5}x - 3y + \frac{3}{2}z = -$$

$$\Delta = \boxed{}$$

$$\Delta x = \boxed{}$$

$$\Delta y = \boxed{}$$

$$\Delta z = \boxed{}$$

$$y = \boxed{}$$

$$z = \boxed{}$$

$$\Delta y = \boxed{}$$

$$\Delta z = \boxed{}$$

$$x = \boxed{}$$

$$y = \boxed{}$$

$$z = \boxed{}$$

Student Name: _____

Score: _____

Answer key

Determinants – Cramer’s Rule

Three Variables: DS2

$$\frac{3}{2}x + \frac{4}{7}y - \frac{3}{4}z = \frac{37}{14}$$

$$-x + \frac{1}{3}y - \frac{z}{2} = \frac{23}{3}$$

$$-\frac{3}{2}x + \frac{2}{3}y + z = -\frac{13}{6}$$

$$\frac{3}{7}x - \frac{y}{6} + \frac{3}{4}z = -\frac{25}{2}$$

$$4x - \frac{y}{3} - \frac{z}{4} = -26$$

$$-2x + \frac{4}{3}y + \frac{5}{3}z = -2$$

$$\Delta = \frac{17}{8}$$

$$\Delta x = -\frac{51}{8}; \Delta y = \frac{1}{4}$$

$$x = \frac{\Delta x}{\Delta} = -3; y = \frac{\Delta y}{\Delta} = \frac{1}{4}$$

$$\Delta z = \frac{-1117}{21}$$

$$z = \frac{\Delta z}{\Delta} = -12$$

PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

www.mathworksheets4kids.com

$$\frac{3}{5}x - \frac{1}{2}y + \frac{4}{3}z = 1$$

$$\frac{2}{3}x + \frac{1}{3}y + \frac{3}{2}z = 1$$

$$\frac{6}{5}x - 3y + \frac{3}{2}z = -1$$

$$\Delta = \frac{-3}{5}$$

$$\Delta x = 3; \Delta y = \frac{-21}{5}$$

$$x = \frac{\Delta x}{\Delta} = -5; y = \frac{\Delta y}{\Delta} = 7; z = \frac{\Delta z}{\Delta} = 12$$

$$z = \frac{23}{9}$$

$$x = \frac{\Delta x}{\Delta} = 6; y = \frac{\Delta y}{\Delta} = -9; z = \frac{\Delta z}{\Delta} = 4$$