

Podsumu

$\frac{33}{100}$

Jacob Baum
2112087
(Doklad o spot)

Much do.

much podumu

i

$$2x + 4y + 5z - 5x - 9y + 2z + 4x - 7y + 8x$$

$$6 \rightarrow 14 \rightarrow 9$$

$$9x - 12y - 3z$$

$$-5z - 7 = -12y$$

2

a	$\frac{1}{2}b$
$\frac{1}{2}b$	r

ii

$$x(x+2) - (x-4)$$

$$x^2 + 2x - x + 4$$

$$x^2 + x + 4$$

5

iii

$$3p^2qr \times 4p^3 \times 5qr^2$$

$$12p^3q^4r \times 5qr^2$$

$$60p^3q^5r^3$$

5

iv

$$\frac{6p^2q^3r}{5p^3q^3r^{-2}}$$

$$\frac{6p^2q^3r}{3p^3q^3r^{-2}}$$

$$2p^{-1}r^{-1}$$

3

v

$$\frac{28g}{16h} \times \frac{4gh^2}{4fh} \times \frac{32fh^3}{12f^3}$$

$$\frac{28g^1 4g^1 h^2 32f^1 h^3}{16h^1 4fh^1 12f^3}$$

$$16h^1 4fh^1 12f^3$$

$$\frac{6485gh^5}{16h^4 f^3}$$

$$\rightarrow \frac{485gh^5}{3f^3 17h} \rightarrow \frac{485gh^4}{3f^3 17}$$

0

$$\rightarrow \frac{485gh^4}{51f}$$

//

mach
2 i ↓

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$$5(x-3) = 2(x+6)$$

$$5x - 15 = 2x + 12$$

$$5x = 2x + 3$$

$$3x = 3$$

$$x = 1$$

4

2 ii

$$\frac{(x+6)}{2} = x + \frac{(2x-5)}{3}$$

$$\frac{1}{2}x + 3 = x + \frac{1}{3}(2x-5)$$

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

$$\frac{1}{2}x + \frac{14}{3} = x + \frac{2}{3}x$$

$$\frac{14}{3} = x + \frac{2}{3}x - \frac{1}{2}x$$

$$\frac{14}{3} = \frac{1}{2}x + \frac{2}{3}x$$

$$\frac{14}{3} = \frac{7}{6}x$$

$$\frac{44}{9} = x$$

4

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3-1 ↓

$$2x + 4y = 16$$

$$3x + 2y = 7$$

$$2x + 4y = 16$$

$$\rightarrow -6x + 4y = 14$$

$$\frac{-4x}{-4x} = 2$$

$$x = \frac{2}{-4}$$

$$x = -\frac{1}{2}$$

Sub ①

$$2\frac{1}{2} + 4y = 16$$

$$1 + 4y = 16$$

$$4y = 15$$

$$y = \frac{15}{4}$$

$$x = -\frac{1}{2}, y = \frac{15}{4}$$

test ②

$$1.5 + 2\frac{15}{4} = 7$$

false

mistake used $\frac{1}{2}$ not $-\frac{1}{2}$

Insert $x = 0.5$ $y = 4.25$

$x = 0.5$ $y = 4.25$ $(y = \frac{17}{4})$

Result: $x = -\frac{1}{2}$

$$y = \frac{17}{4}$$

$$x = -0.5$$

$$y = \frac{17}{4}$$

//

//

10

mark ↓

4 i

mark podsumu

$$A = \begin{bmatrix} 1 & 1 & 6 \\ 1 & 2 & 2 \\ 1 & 3 & -1 \end{bmatrix}$$

↓

$$a \begin{bmatrix} 2 & 2 \\ 3 & -1 \end{bmatrix} - b \begin{bmatrix} 1 & 2 \\ 1 & -1 \end{bmatrix} + c \begin{bmatrix} 1 & 2 \\ 1 & 3 \end{bmatrix}$$

$$\det A_m \begin{bmatrix} 2+1-1 & 2-2+2 \\ 3-1+1 & -1+1+3 \end{bmatrix} = \begin{bmatrix} 2 & 2 \\ 3 & +3 \end{bmatrix}$$

$$\det A = 5 \cdot 5 = 0$$

left

$$A^{-1} = \begin{bmatrix} -8 & 19 & -10 \\ 3 & -7 & 4 \\ 1 & -2 & 1 \end{bmatrix}$$

0

mark ↓

mark problem

51

What? - apologies, I will return, I just don't understand the questions.

Attempt

$$x = \begin{bmatrix} 1 \\ 2 \\ 4 \end{bmatrix}$$

Where z is constant

$$x + y + 6z = 1 \Rightarrow x + 6z - 1 = y$$

$$x + 2y + 2z = 2 \rightarrow \frac{(x + 2z)}{2} = y$$

$$x + 3y - 12 = 4 \rightarrow \frac{x + 4z}{43} = y$$

$$z = 1$$

When $z = 1$

$$y = 5$$

$$x = -5$$

/sub/

The problem is I don't understand if Q4 was correct.
So I doubt the matrix method works

$$\begin{bmatrix} a & b & c \\ e & f & g \\ h & i & j \end{bmatrix} \cdot [1, 2, 4] =$$

$$\begin{bmatrix} a & b & c \\ e & f & g \\ h & i & j \end{bmatrix} \cdot \begin{bmatrix} 1 \\ 2 \\ 4 \end{bmatrix} =$$

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$$\frac{3x+2}{2x^2-x-1}$$

$$\frac{3x+2}{(2x+1)(x-1)} \equiv \frac{A}{(2x+1)} + \frac{B}{(x-1)}$$

$$2x^2-2x+x-1 \equiv A(x-1) + B(2x+1)$$

$$2x^2-x-1 \checkmark \equiv 0 + 3B$$

$$x=1$$

$$\equiv -0.5A + 0$$

$$x=\frac{1}{2}$$

$$x=1 \text{ \& } x=0.5$$

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