

Name: _____

Date _____

Topic : Linear Systems - Write as a Matrix - Worksheet 1

Write the linear system as a matrix equation

$$\begin{aligned} \text{1. } & 4x + 11y = 50 \\ & 2x + 6y = 20 \end{aligned}$$

$$\begin{aligned} \text{2. } & 3x + 7y - 5z = -6 \\ & 8x - 15y - 2z = 15 \\ & 2x + 6y - 3z = -25 \end{aligned}$$

$$\begin{aligned} \text{3. } & 6x + 8y = 28 \\ & 5x + 6y = 55 \end{aligned}$$

$$\begin{aligned} \text{4. } & 7x + 2y - 4z = 14 \\ & -5x + 8y + 5z = 10 \\ & 4x - 6y + 8z = 12 \end{aligned}$$

$$\begin{aligned} \text{5. } & 6x + 5y = -60 \\ & 7x - 3y = 25 \end{aligned}$$

$$\begin{aligned} \text{6. } & -6x + 5y = 40 \\ & 4x - 6y = 20 \end{aligned}$$

$$\begin{aligned} \text{7. } & 7x + 6y - 9z = 36 \\ & 4x + 5y - 4z = -16 \\ & 6x - 3y + 5z = 15 \end{aligned}$$

$$\begin{aligned} \text{8. } & 8x - 3y = -18 \\ & 3x + 4y = 50 \end{aligned}$$

$$\begin{aligned} \text{9. } & 15x - 6y + 6z = 21 \\ & 8x + 6y - 5z = 16 \\ & 4x - 2y + 6z = 36 \end{aligned}$$

$$\begin{aligned} \text{10. } & 8x + 4y = 20 \\ & 6x - 4y = -24 \end{aligned}$$



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Topic : Linear Systems - Write as a Matrix - Worksheet 2

Write the linear system as a matrix equation

$$\begin{aligned} \text{1. } & 7x + 10y = 35 \\ & 4x + 14y = 12 \end{aligned}$$

$$\begin{aligned} \text{2. } & 5x + 8y - 9z = -9 \\ & 4x - 12y - 6z = 11 \\ & 6x + 7y - 6z = -15 \end{aligned}$$

$$\begin{aligned} \text{3. } & 9x + 2y = 18 \\ & 3x + 7y = 22 \end{aligned}$$

$$\begin{aligned} \text{4. } & 9x + 6y - 8z = 25 \\ & -8x + 4y + 3z = 12 \\ & 6x - 5y + 7z = 19 \end{aligned}$$

$$\begin{aligned} \text{5. } & 9x + 6y = -36 \\ & 6x - 9y = 14 \end{aligned}$$

$$\begin{aligned} \text{6. } & -3x + 8y = 61 \\ & 9x - 5y = 29 \end{aligned}$$

$$\begin{aligned} \text{7. } & 6x + 4y - 4z = 26 \\ & 8x + 9y - 8z = -20 \\ & 8x - 6y + 3z = 15 \end{aligned}$$

$$\begin{aligned} \text{8. } & 5x - 9y = -21 \\ & 8x + 8y = 14 \end{aligned}$$

$$\begin{aligned} \text{9. } & 39x - 8y + 8z = 25 \\ & 5x + 5y - 6z = 17 \\ & 2x - 3y + 7z = 21 \end{aligned}$$

$$\begin{aligned} \text{10. } & 7x + 6y = 18 \\ & 2x - 3y = -14 \end{aligned}$$



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Topic : Linear Systems - Write as a Matrix - Worksheet 3

Write the linear system as a matrix equation

1. $9x + 16y = 29$
 $6x + 18y = 13$

2. $9x + 4y - 6z = -5$
 $6x - 18y - 8z = 15$
 $9x + 6y - 9z = -19$

3. $8x + 4y = 31$
 $2x + 5y = 14$

4. $7x + y - 4z = 31$
 $-2x + 6y + 5z = 11$
 $9x - 4y + 8z = 10$

5. $2x + 9y = -45$
 $8x - 5y = 24$

6. $-5x + 7y = 74$
 $5x - 2y = 15$

7. $5x + 2y - 8z = 14$
 $6x + 3y - 7z = -30$
 $7x - 8y + 7z = 39$

8. $8x - 6y = -11$
 $3x + 3y = 10$

9. $35x - 7y + 2z = 13$
 $3x + 7y - 8z = 16$
 $5x - 5y + 8z = 29$

10. $8x + 5y = 13$
 $6x - 5y = -09$



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Topic : Linear Systems - Write as a Matrix - Worksheet 4

Write the linear system as a matrix equation

1. $2x + 10y = 14$
 $8x + 20y = 15$

2. $4x + 6y - 8z = -2$
 $8x - 12y - 6z = 19$
 $5x + 8y - 6z = -21$

3. $9x + 2y = 15$
 $6x + 8y = 35$

4. $5x + 8y - 8z = 15$
 $-6x + 9y + 4z = 19$
 $4x - 5y + 3z = 22$

5. $7x + 5y = -50$
 $5x - 6y = 14$

6. $-8x + 9y = 80$
 $4x - 5y = 17$

7. $9x + 5y - 4z = 21$
 $2x + 8y - 5z = -26$
 $4x - 9y + 4z = 39$

8. $5x - 5y = -13$
 $4x + 9y = 19$

9. $12x - 5y + 8z = 16$
 $9x + 2y - 9z = 23$
 $8x - 4y + 7z = 31$

10. $6x + 8y = 51$
 $7x - 4y = -19$



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Topic : Linear Systems - Write as a Matrix - Worksheet 5

Write the linear system as a matrix equation

1. $5x + 19y = 31$
 $6x + 12y = 13$

2. $7x + 2y - 9z = -6$
 $5x - 16y - 4z = 15$
 $3x + 6y - 4z = -11$

3. $4x + 3y = 20$
 $7x + 14y = 22$

4. $6x + 9y - 6z = 13$
 $-3x + 5y + 5z = 15$
 $8x - 3y + 5z = 11$

5. $3x + 6y = -25$
 $6x - 9y = 13$

6. $-2x + 3y = 31$
 $9x - 7y = 14$

7. $5x + 8y - 2z = 61$
 $9x + 2y - 6z = -11$
 $8x - 2y + 5z = 21$

8. $3x - 8y = -18$
 $6x + 6y = 10$

9. $23x - 7y + 2z = 26$
 $12x + 8y - 7z = 32$
 $4x - 7y + 8z = 45$

10. $9x + 6y = 21$
 $5x - 6y = -17$

