

## Systèmes Linéaires (A)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 5a - c + 6u = 20 \\& 5a - 2c + 3u = 8 \\& -4c + 6u = 6\end{aligned}$$

$$\begin{aligned}5. \quad & c + 4u - 2x = 4 \\& 4c + u = 21 \\& -2c - 5u = 3\end{aligned}$$

$$\begin{aligned}2. \quad & 4a + 5c - 3y = 6 \\& 2a - 5c - 3y = 18 \\& 5a + 4c - y = -4\end{aligned}$$

$$\begin{aligned}6. \quad & -5b + 5c - 2y = 38 \\& -4b + 3c - 3y = 16 \\& 2b + 5c + 3y = 40\end{aligned}$$

$$\begin{aligned}3. \quad & -2c - u - 4y = -7 \\& -4c + 4u - y = -4 \\& -5c + 2u + 6y = 33\end{aligned}$$

$$\begin{aligned}7. \quad & 4c - 2u + 5v = -5 \\& 2c - u - 2v = -16 \\& 3c - 2u + 3v = -6\end{aligned}$$

$$\begin{aligned}4. \quad & -b + 5v + x = 3 \\& 5b + 6v - x = -23 \\& 3b + 4v + x = -17\end{aligned}$$

$$\begin{aligned}8. \quad & -a - 3v + 4y = -19 \\& 5a - 4v - 5y = -4 \\& -a + 3v + 4y = 17\end{aligned}$$

# Systèmes Linéaires (A) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 5a - c + 6u = 20 \\& 5a - 2c + 3u = 8 \\& -4c + 6u = 6 \\& \textcolor{red}{a = 1, c = 3, u = 3}\end{aligned}$$

$$\begin{aligned}5. \quad & c + 4u - 2x = 4 \\& 4c + u = 21 \\& -2c - 5u = 3 \\& \textcolor{red}{c = 6, u = -3, x = -5}\end{aligned}$$

$$\begin{aligned}2. \quad & 4a + 5c - 3y = 6 \\& 2a - 5c - 3y = 18 \\& 5a + 4c - y = -4 \\& \textcolor{red}{a = -1, c = -1, y = -5}\end{aligned}$$

$$\begin{aligned}6. \quad & -5b + 5c - 2y = 38 \\& -4b + 3c - 3y = 16 \\& 2b + 5c + 3y = 40 \\& \textcolor{red}{b = -4, c = 6, y = 6}\end{aligned}$$

$$\begin{aligned}3. \quad & -2c - u - 4y = -7 \\& -4c + 4u - y = -4 \\& -5c + 2u + 6y = 33 \\& \textcolor{red}{c = -3, u = -3, y = 4}\end{aligned}$$

$$\begin{aligned}7. \quad & 4c - 2u + 5v = -5 \\& 2c - u - 2v = -16 \\& 3c - 2u + 3v = -6 \\& \textcolor{red}{c = -5, u = 0, v = 3}\end{aligned}$$

$$\begin{aligned}4. \quad & -b + 5v + x = 3 \\& 5b + 6v - x = -23 \\& 3b + 4v + x = -17 \\& \textcolor{red}{b = -5, v = 0, x = -2}\end{aligned}$$

$$\begin{aligned}8. \quad & -a - 3v + 4y = -19 \\& 5a - 4v - 5y = -4 \\& -a + 3v + 4y = 17 \\& \textcolor{red}{a = 5, v = 6, y = 1}\end{aligned}$$

## Systèmes Linéaires (B)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & -2c - 3u - z = -11 \\& 5c + 2z = -9 \\& 5c - 5u = -30\end{aligned}$$

$$\begin{aligned}5. \quad & 3b + y + z = 18 \\& -5b - 3y - 4z = -34 \\& -5y - 2z = -15\end{aligned}$$

$$\begin{aligned}2. \quad & -2u - 5v + 3z = 9 \\& 2u - 2v - 4z = 28 \\& u + 3v = -10\end{aligned}$$

$$\begin{aligned}6. \quad & -5b - c - 3y = 26 \\& 6b - 2c - y = -22 \\& 6b + c + 4y = -32\end{aligned}$$

$$\begin{aligned}3. \quad & 5b + 4c - 3y = 6 \\& 3b - 5c = 35 \\& 3b - c = 19\end{aligned}$$

$$\begin{aligned}7. \quad & 3b + 6c - x = -29 \\& -4b - 3c - 4x = 35 \\& b - 5x = 19\end{aligned}$$

$$\begin{aligned}4. \quad & 5c - 5x + 2y = 17 \\& -5c - 5x - 2y = -67 \\& -3c - 2x + y = -22\end{aligned}$$

$$\begin{aligned}8. \quad & -4u - 3v + 5x = 37 \\& -3u + 2v - 2x = -18 \\& -4u - 3v - 5x = -13\end{aligned}$$

## Systèmes Linéaires (B) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & -2c - 3u - z = -11 \\& 5c + 2z = -9 \\& 5c - 5u = -30 \\& \textcolor{red}{c = -1, u = 5, z = -2}\end{aligned}$$

$$\begin{aligned}5. \quad & 3b + y + z = 18 \\& -5b - 3y - 4z = -34 \\& -5y - 2z = -15 \\& \textcolor{red}{b = 5, y = 3, z = 0}\end{aligned}$$

$$\begin{aligned}2. \quad & -2u - 5v + 3z = 9 \\& 2u - 2v - 4z = 28 \\& u + 3v = -10 \\& \textcolor{red}{u = 5, v = -5, z = -2}\end{aligned}$$

$$\begin{aligned}6. \quad & -5b - c - 3y = 26 \\& 6b - 2c - y = -22 \\& 6b + c + 4y = -32 \\& \textcolor{red}{b = -4, c = 0, y = -2}\end{aligned}$$

$$\begin{aligned}3. \quad & 5b + 4c - 3y = 6 \\& 3b - 5c = 35 \\& 3b - c = 19 \\& \textcolor{red}{b = 5, c = -4, y = 1}\end{aligned}$$

$$\begin{aligned}7. \quad & 3b + 6c - x = -29 \\& -4b - 3c - 4x = 35 \\& b - 5x = 19 \\& \textcolor{red}{b = -1, c = -5, x = -4}\end{aligned}$$

$$\begin{aligned}4. \quad & 5c - 5x + 2y = 17 \\& -5c - 5x - 2y = -67 \\& -3c - 2x + y = -22 \\& \textcolor{red}{c = 6, x = 5, y = 6}\end{aligned}$$

$$\begin{aligned}8. \quad & -4u - 3v + 5x = 37 \\& -3u + 2v - 2x = -18 \\& -4u - 3v - 5x = -13 \\& \textcolor{red}{u = 0, v = -4, x = 5}\end{aligned}$$

## Systèmes Linéaires (C)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 5a + 5b - 3y = -3 \\& -3a + 6b + 6y = 45 \\& -2a - 4b + 5y = 20\end{aligned}$$

$$\begin{aligned}5. \quad & 4b + 5u - y = 13 \\& -2b + 4u + 4y = 40 \\& u + 6y = 29\end{aligned}$$

$$\begin{aligned}2. \quad & 4b + c - v = 3 \\& 3b + 3c - v = 9 \\& -5c - 2v = -15\end{aligned}$$

$$\begin{aligned}6. \quad & 3a + 5c + 6u = 20 \\& 3a + 3c + 2u = 12 \\& 4a - 5c - 5u = 11\end{aligned}$$

$$\begin{aligned}3. \quad & -c - 5v - y = -22 \\& 5c + 5y = 10 \\& -2c - 4v = -18\end{aligned}$$

$$\begin{aligned}7. \quad & -2c - y + 2z = -3 \\& -5c + 4y - 3z = -38 \\& c + y = 4\end{aligned}$$

$$\begin{aligned}4. \quad & v + 3y - 2z = -11 \\& -2v - y + 6z = 27 \\& 3v - 5y + z = 16\end{aligned}$$

$$\begin{aligned}8. \quad & -2u + 4y - 2z = -8 \\& 4u - 2y - 5z = 1 \\& 5y + z = -21\end{aligned}$$

## Systèmes Linéaires (C) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 5a + 5b - 3y = -3 \\& -3a + 6b + 6y = 45 \\& -2a - 4b + 5y = 20 \\& \textcolor{red}{a = 1, b = 2, y = 6}\end{aligned}$$

$$\begin{aligned}5. \quad & 4b + 5u - y = 13 \\& -2b + 4u + 4y = 40 \\& u + 6y = 29 \\& \textcolor{red}{b = -2, u = 5, y = 4}\end{aligned}$$

$$\begin{aligned}2. \quad & 4b + c - v = 3 \\& 3b + 3c - v = 9 \\& -5c - 2v = -15 \\& \textcolor{red}{b = 0, c = 3, v = 0}\end{aligned}$$

$$\begin{aligned}6. \quad & 3a + 5c + 6u = 20 \\& 3a + 3c + 2u = 12 \\& 4a - 5c - 5u = 11 \\& \textcolor{red}{a = 4, c = -2, u = 3}\end{aligned}$$

$$\begin{aligned}3. \quad & -c - 5v - y = -22 \\& 5c + 5y = 10 \\& -2c - 4v = -18 \\& \textcolor{red}{c = 1, v = 4, y = 1}\end{aligned}$$

$$\begin{aligned}7. \quad & -2c - y + 2z = -3 \\& -5c + 4y - 3z = -38 \\& c + y = 4 \\& \textcolor{red}{c = 5, y = -1, z = 3}\end{aligned}$$

$$\begin{aligned}4. \quad & v + 3y - 2z = -11 \\& -2v - y + 6z = 27 \\& 3v - 5y + z = 16 \\& \textcolor{red}{v = 2, y = -1, z = 5}\end{aligned}$$

$$\begin{aligned}8. \quad & -2u + 4y - 2z = -8 \\& 4u - 2y - 5z = 1 \\& 5y + z = -21 \\& \textcolor{red}{u = -3, y = -4, z = -1}\end{aligned}$$

## Systèmes Linéaires (D)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 2u - 5x - z = -8 \\& 2u + x - 2z = -7 \\& -2u - 5x - 5z = -32\end{aligned}$$

$$\begin{aligned}5. \quad & -c + 5x + y = -21 \\& 3c - 5x + 3y = 21 \\& 2c - 2x + 2y = 10\end{aligned}$$

$$\begin{aligned}2. \quad & 2b + 5c - 4x = -7 \\& b - 5c + 4x = 22 \\& 3b - c + 3x = 14\end{aligned}$$

$$\begin{aligned}6. \quad & 6a - 2c + 3u = -18 \\& 6a - 5c - 3u = -42 \\& 5a + 4c + 2u = -17\end{aligned}$$

$$\begin{aligned}3. \quad & 6a + 4b - y = 15 \\& 4a - y = 17 \\& -b - 5y = -12\end{aligned}$$

$$\begin{aligned}7. \quad & 4b - 3v + y = 5 \\& 5v + 6y = 3 \\& 3b + 3y = 6\end{aligned}$$

$$\begin{aligned}4. \quad & -2v - 4x + 2y = -2 \\& -5v - 5x + y = -5 \\& -5v + 5x - 4y = -5\end{aligned}$$

$$\begin{aligned}8. \quad & 5a - 5v - 3y = -17 \\& -4a - v - y = -15 \\& 5a + 5v - 4y = 9\end{aligned}$$

## Systèmes Linéaires (D) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 2u - 5x - z = -8 \\& 2u + x - 2z = -7 \\& -2u - 5x - 5z = -32 \\& u = 1, x = 1, z = 5\end{aligned}$$

$$\begin{aligned}5. \quad & -c + 5x + y = -21 \\& 3c - 5x + 3y = 21 \\& 2c - 2x + 2y = 10 \\& c = 4, x = -3, y = -2\end{aligned}$$

$$\begin{aligned}2. \quad & 2b + 5c - 4x = -7 \\& b - 5c + 4x = 22 \\& 3b - c + 3x = 14 \\& b = 5, c = -5, x = -2\end{aligned}$$

$$\begin{aligned}6. \quad & 6a - 2c + 3u = -18 \\& 6a - 5c - 3u = -42 \\& 5a + 4c + 2u = -17 \\& a = -5, c = 0, u = 4\end{aligned}$$

$$\begin{aligned}3. \quad & 6a + 4b - y = 15 \\& 4a - y = 17 \\& -b - 5y = -12 \\& a = 5, b = -3, y = 3\end{aligned}$$

$$\begin{aligned}7. \quad & 4b - 3v + y = 5 \\& 5v + 6y = 3 \\& 3b + 3y = 6 \\& b = 4, v = 3, y = -2\end{aligned}$$

$$\begin{aligned}4. \quad & -2v - 4x + 2y = -2 \\& -5v - 5x + y = -5 \\& -5v + 5x - 4y = -5 \\& v = 1, x = 0, y = 0\end{aligned}$$

$$\begin{aligned}8. \quad & 5a - 5v - 3y = -17 \\& -4a - v - y = -15 \\& 5a + 5v - 4y = 9 \\& a = 2, v = 3, y = 4\end{aligned}$$

## Systèmes Linéaires (E)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 3a + 4b + 6v = 14 \\& -5a - 4b + 3v = 39 \\& 5a - 3b + 4v = 3\end{aligned}$$

$$\begin{aligned}5. \quad & -3c + 5x - 4y = -20 \\& 3c + x + 4y = -10 \\& -2c - y = 0\end{aligned}$$

$$\begin{aligned}2. \quad & 5c - 5u + 5y = 25 \\& -c + u = -2 \\& -c - 2u = -8\end{aligned}$$

$$\begin{aligned}6. \quad & c + 6u + 2y = -28 \\& -c + 5y = -24 \\& -c - y = 0\end{aligned}$$

$$\begin{aligned}3. \quad & -4b + 6u + 3z = 5 \\& 2b - 4u - 5z = -9 \\& 4b + 6u + 4z = 38\end{aligned}$$

$$\begin{aligned}7. \quad & -4b + 3u + 4y = -9 \\& 5b - 2u - 2y = 8 \\& -5b + 2y = -18\end{aligned}$$

$$\begin{aligned}4. \quad & -3a + c + 6u = -11 \\& -3a + 4u = -8 \\& -2a + 6u = -12\end{aligned}$$

$$\begin{aligned}8. \quad & -4a - 3v + 4x = -20 \\& 5a - 2v - 4x = 1 \\& -5a - 4v = -21\end{aligned}$$

## Systèmes Linéaires (E) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 3a + 4b + 6v = 14 \\& -5a - 4b + 3v = 39 \\& 5a - 3b + 4v = 3 \\& \textcolor{red}{a = -4, b = -1, v = 5}\end{aligned}$$

$$\begin{aligned}5. \quad & -3c + 5x - 4y = -20 \\& 3c + x + 4y = -10 \\& -2c - y = 0 \\& \textcolor{red}{c = 1, x = -5, y = -2}\end{aligned}$$

$$\begin{aligned}2. \quad & 5c - 5u + 5y = 25 \\& -c + u = -2 \\& -c - 2u = -8 \\& \textcolor{red}{c = 4, u = 2, y = 3}\end{aligned}$$

$$\begin{aligned}6. \quad & c + 6u + 2y = -28 \\& -c + 5y = -24 \\& -c - y = 0 \\& \textcolor{red}{c = 4, u = -4, y = -4}\end{aligned}$$

$$\begin{aligned}3. \quad & -4b + 6u + 3z = 5 \\& 2b - 4u - 5z = -9 \\& 4b + 6u + 4z = 38 \\& \textcolor{red}{b = 4, u = 3, z = 1}\end{aligned}$$

$$\begin{aligned}7. \quad & -4b + 3u + 4y = -9 \\& 5b - 2u - 2y = 8 \\& -5b + 2y = -18 \\& \textcolor{red}{b = 2, u = 5, y = -4}\end{aligned}$$

$$\begin{aligned}4. \quad & -3a + c + 6u = -11 \\& -3a + 4u = -8 \\& -2a + 6u = -12 \\& \textcolor{red}{a = 0, c = 1, u = -2}\end{aligned}$$

$$\begin{aligned}8. \quad & -4a - 3v + 4x = -20 \\& 5a - 2v - 4x = 1 \\& -5a - 4v = -21 \\& \textcolor{red}{a = 1, v = 4, x = -1}\end{aligned}$$

## Systèmes Linéaires (F)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 6u - v - 4y = -17 \\& -u - 2v + y = 0 \\& 4u - 2v + 5y = -28\end{aligned}$$

$$\begin{aligned}5. \quad & -2b - v + 3x = 13 \\& -3b + 5v - x = -13 \\& -4b + v = 11\end{aligned}$$

$$\begin{aligned}2. \quad & 4a + v - z = 0 \\& 4a + 2v + 5z = -17 \\& -v - 5z = 14\end{aligned}$$

$$\begin{aligned}6. \quad & c + x - 2z = -3 \\& -5c + x - 2z = -9 \\& -c - x + 6z = 23\end{aligned}$$

$$\begin{aligned}3. \quad & c - y + z = 0 \\& -4c + 6y + z = 20 \\& 3c - 5y + 3z = -10\end{aligned}$$

$$\begin{aligned}7. \quad & -2b + 6v + x = 29 \\& -3b + 3v + 5x = 43 \\& 2v - 3x = -9\end{aligned}$$

$$\begin{aligned}4. \quad & 3a - 3b + u = -6 \\& a - 4b + 5u = -14 \\& 4a + 4b + 6u = 24\end{aligned}$$

$$\begin{aligned}8. \quad & -5a - u + v = -9 \\& 3a + u + 3v = 19 \\& -u + v = 6\end{aligned}$$

## Systèmes Linéaires (F) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 6u - v - 4y = -17 \\& -u - 2v + y = 0 \\& 4u - 2v + 5y = -28 \\& \textcolor{red}{u = -4, v = 1, y = -2}\end{aligned}$$

$$\begin{aligned}5. \quad & -2b - v + 3x = 13 \\& -3b + 5v - x = -13 \\& -4b + v = 11 \\& \textcolor{red}{b = -4, v = -5, x = 0}\end{aligned}$$

$$\begin{aligned}2. \quad & 4a + v - z = 0 \\& 4a + 2v + 5z = -17 \\& -v - 5z = 14 \\& \textcolor{red}{a = -1, v = 1, z = -3}\end{aligned}$$

$$\begin{aligned}6. \quad & c + x - 2z = -3 \\& -5c + x - 2z = -9 \\& -c - x + 6z = 23 \\& \textcolor{red}{c = 1, x = 6, z = 5}\end{aligned}$$

$$\begin{aligned}3. \quad & c - y + z = 0 \\& -4c + 6y + z = 20 \\& 3c - 5y + 3z = -10 \\& \textcolor{red}{c = 3, y = 5, z = 2}\end{aligned}$$

$$\begin{aligned}7. \quad & -2b + 6v + x = 29 \\& -3b + 3v + 5x = 43 \\& 2v - 3x = -9 \\& \textcolor{red}{b = -3, v = 3, x = 5}\end{aligned}$$

$$\begin{aligned}4. \quad & 3a - 3b + u = -6 \\& a - 4b + 5u = -14 \\& 4a + 4b + 6u = 24 \\& \textcolor{red}{a = 2, b = 4, u = 0}\end{aligned}$$

$$\begin{aligned}8. \quad & -5a - u + v = -9 \\& 3a + u + 3v = 19 \\& -u + v = 6 \\& \textcolor{red}{a = 3, u = -2, v = 4}\end{aligned}$$

## Systèmes Linéaires (G)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & -5a - 2u = 2 \\& -2a + 3y = 7 \\& 2a - 2y = -6\end{aligned}$$

$$\begin{aligned}5. \quad & -5u - 2x = -9 \\& -3v + 2x = -18 \\& -4u + 3v = 0\end{aligned}$$

$$\begin{aligned}2. \quad & 4u + 2v - z = 2 \\& -2u + 5v + 5z = 20 \\& -2u - 3v + 2z = -2\end{aligned}$$

$$\begin{aligned}6. \quad & 6u - 4v + z = 30 \\& -3v - 5z = -7 \\& 2v + z = 0\end{aligned}$$

$$\begin{aligned}3. \quad & 6a - 4x - 5z = -23 \\& 2a + 6x = -32 \\& -a - z = 1\end{aligned}$$

$$\begin{aligned}7. \quad & -2u + 6v + 6y = 38 \\& -3u - v - 2y = -3 \\& 2u + 4y = -2\end{aligned}$$

$$\begin{aligned}4. \quad & 6b - 3c - z = -1 \\& 6b + 5c + 4z = 36 \\& 3b - 2c - 5z = -7\end{aligned}$$

$$\begin{aligned}8. \quad & -b - 5u - 4z = -31 \\& -5b + 2u - 4z = 1 \\& b - u - 2z = -11\end{aligned}$$

## Systèmes Linéaires (G) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & -5a - 2u = 2 \\& -2a + 3y = 7 \\& 2a - 2y = -6 \\& \textcolor{red}{a = -2, u = 4, y = 1}\end{aligned}$$

$$\begin{aligned}5. \quad & -5u - 2x = -9 \\& -3v + 2x = -18 \\& -4u + 3v = 0 \\& \textcolor{red}{u = 3, v = 4, x = -3}\end{aligned}$$

$$\begin{aligned}2. \quad & 4u + 2v - z = 2 \\& -2u + 5v + 5z = 20 \\& -2u - 3v + 2z = -2 \\& \textcolor{red}{u = 0, v = 2, z = 2}\end{aligned}$$

$$\begin{aligned}6. \quad & 6u - 4v + z = 30 \\& -3v - 5z = -7 \\& 2v + z = 0 \\& \textcolor{red}{u = 4, v = -1, z = 2}\end{aligned}$$

$$\begin{aligned}3. \quad & 6a - 4x - 5z = -23 \\& 2a + 6x = -32 \\& -a - z = 1 \\& \textcolor{red}{a = -4, x = -4, z = 3}\end{aligned}$$

$$\begin{aligned}7. \quad & -2u + 6v + 6y = 38 \\& -3u - v - 2y = -3 \\& 2u + 4y = -2 \\& \textcolor{red}{u = -1, v = 6, y = 0}\end{aligned}$$

$$\begin{aligned}4. \quad & 6b - 3c - z = -1 \\& 6b + 5c + 4z = 36 \\& 3b - 2c - 5z = -7 \\& \textcolor{red}{b = 2, c = 4, z = 1}\end{aligned}$$

$$\begin{aligned}8. \quad & -b - 5u - 4z = -31 \\& -5b + 2u - 4z = 1 \\& b - u - 2z = -11 \\& \textcolor{red}{b = -1, u = 4, z = 3}\end{aligned}$$

## Systèmes Linéaires (H)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & -2c - 5u - 2v = 41 \\& 4u - 4v = -4 \\& -4c + 6u = -14\end{aligned}$$

$$\begin{aligned}5. \quad & -b + 2c + 6v = 23 \\& 4b - c + 4v = 6 \\& 6b - 3c + 6v = 12\end{aligned}$$

$$\begin{aligned}2. \quad & -3a + 6b - z = 12 \\& 2a - 2b + 5z = 11 \\& -2a - 2b - 4z = -20\end{aligned}$$

$$\begin{aligned}6. \quad & 2a - 3y + 3z = 22 \\& -3a + 5y - 5z = -37 \\& 2a + 5z = 13\end{aligned}$$

$$\begin{aligned}3. \quad & -4b + 3y + z = 9 \\& -4b - 4y + 6z = -16 \\& 6b - y + 5z = 17\end{aligned}$$

$$\begin{aligned}7. \quad & 3c + 5x + 5z = 8 \\& 4c - 2x - z = 28 \\& 6c - 3x + 5z = 42\end{aligned}$$

$$\begin{aligned}4. \quad & 3c - 3v + 5z = 19 \\& -4c + 5v - 3z = -17 \\& -4c - 4v - 5z = -30\end{aligned}$$

$$\begin{aligned}8. \quad & -2c - 5y + 4z = -42 \\& -c + 3y - 4z = 31 \\& 3c - 3y - 4z = 11\end{aligned}$$

## Systèmes Linéaires (H) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & -2c - 5u - 2v = 41 \\& 4u - 4v = -4 \\& -4c + 6u = -14 \\& \textcolor{red}{c = -4, u = -5, v = -4}\end{aligned}$$

$$\begin{aligned}5. \quad & -b + 2c + 6v = 23 \\& 4b - c + 4v = 6 \\& 6b - 3c + 6v = 12 \\& \textcolor{red}{b = -3, c = -2, v = 4}\end{aligned}$$

$$\begin{aligned}2. \quad & -3a + 6b - z = 12 \\& 2a - 2b + 5z = 11 \\& -2a - 2b - 4z = -20 \\& \textcolor{red}{a = 1, b = 3, z = 3}\end{aligned}$$

$$\begin{aligned}6. \quad & 2a - 3y + 3z = 22 \\& -3a + 5y - 5z = -37 \\& 2a + 5z = 13 \\& \textcolor{red}{a = -1, y = -5, z = 3}\end{aligned}$$

$$\begin{aligned}3. \quad & -4b + 3y + z = 9 \\& -4b - 4y + 6z = -16 \\& 6b - y + 5z = 17 \\& \textcolor{red}{b = 2, y = 5, z = 2}\end{aligned}$$

$$\begin{aligned}7. \quad & 3c + 5x + 5z = 8 \\& 4c - 2x - z = 28 \\& 6c - 3x + 5z = 42 \\& \textcolor{red}{c = 6, x = -2, z = 0}\end{aligned}$$

$$\begin{aligned}4. \quad & 3c - 3v + 5z = 19 \\& -4c + 5v - 3z = -17 \\& -4c - 4v - 5z = -30 \\& \textcolor{red}{c = 4, v = 1, z = 2}\end{aligned}$$

$$\begin{aligned}8. \quad & -2c - 5y + 4z = -42 \\& -c + 3y - 4z = 31 \\& 3c - 3y - 4z = 11 \\& \textcolor{red}{c = 1, y = 4, z = -5}\end{aligned}$$

## Systèmes Linéaires (I)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 2a - 2c + 2v = -2 \\& 3a - c - 4v = -23 \\& -a - v = -3\end{aligned}$$

$$\begin{aligned}5. \quad & 2a - 5b - 2y = 5 \\& 5a - 3b - 5y = 22 \\& -3a - 4y = 13\end{aligned}$$

$$\begin{aligned}2. \quad & -5a - 4b + 5x = 0 \\& -2a + 5b - 4x = 3 \\& -2a - 5b - 3x = -42\end{aligned}$$

$$\begin{aligned}6. \quad & 3c - 4u - 2x = 34 \\& -5c + 6u + 2x = -50 \\& 4c + 4u + x = 12\end{aligned}$$

$$\begin{aligned}3. \quad & -4c + 3v - 5y = -9 \\& -3c - 3v + 3y = 6 \\& 3c + 3y = 12\end{aligned}$$

$$\begin{aligned}7. \quad & -4c + 4v - z = 2 \\& -4c - 2v + 6z = 50 \\& 5c + 3v + 3z = 0\end{aligned}$$

$$\begin{aligned}4. \quad & 2u + 6v - 4y = -4 \\& 2u + v + 3y = 14 \\& -5u + 3v = 6\end{aligned}$$

$$\begin{aligned}8. \quad & a - 5y - 3z = -10 \\& -4a + 5y + 6z = -17 \\& 2a + 6y + 3z = 33\end{aligned}$$

# Systèmes Linéaires (I) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & 2a - 2c + 2v = -2 \\& 3a - c - 4v = -23 \\& -a - v = -3 \\& \textcolor{red}{a = -1, c = 4, v = 4}\end{aligned}$$

$$\begin{aligned}5. \quad & 2a - 5b - 2y = 5 \\& 5a - 3b - 5y = 22 \\& -3a - 4y = 13 \\& \textcolor{red}{a = 1, b = 1, y = -4}\end{aligned}$$

$$\begin{aligned}2. \quad & -5a - 4b + 5x = 0 \\& -2a + 5b - 4x = 3 \\& -2a - 5b - 3x = -42 \\& \textcolor{red}{a = 1, b = 5, x = 5}\end{aligned}$$

$$\begin{aligned}6. \quad & 3c - 4u - 2x = 34 \\& -5c + 6u + 2x = -50 \\& 4c + 4u + x = 12 \\& \textcolor{red}{c = 6, u = -2, x = -4}\end{aligned}$$

$$\begin{aligned}3. \quad & -4c + 3v - 5y = -9 \\& -3c - 3v + 3y = 6 \\& 3c + 3y = 12 \\& \textcolor{red}{c = -1, v = 4, y = 5}\end{aligned}$$

$$\begin{aligned}7. \quad & -4c + 4v - z = 2 \\& -4c - 2v + 6z = 50 \\& 5c + 3v + 3z = 0 \\& \textcolor{red}{c = -3, v = -1, z = 6}\end{aligned}$$

$$\begin{aligned}4. \quad & 2u + 6v - 4y = -4 \\& 2u + v + 3y = 14 \\& -5u + 3v = 6 \\& \textcolor{red}{u = 0, v = 2, y = 4}\end{aligned}$$

$$\begin{aligned}8. \quad & a - 5y - 3z = -10 \\& -4a + 5y + 6z = -17 \\& 2a + 6y + 3z = 33 \\& \textcolor{red}{a = 6, y = 5, z = -3}\end{aligned}$$

## Systèmes Linéaires (J)

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & a + 4b - 4z = 7 \\& -3a + b - z = 18 \\& 3a - 2b - 3z = -26\end{aligned}$$

$$\begin{aligned}5. \quad & 2a + c - y = 6 \\& -a + 5c - 2y = 9 \\& -3a - 5y = -29\end{aligned}$$

$$\begin{aligned}2. \quad & -5a + 6b + 5u = 50 \\& 3a - 5b = -37 \\& -2b + 4u = -10\end{aligned}$$

$$\begin{aligned}6. \quad & 4c + 3x - z = 5 \\& 4c - 2x + 2z = -10 \\& -c + 6x = 19\end{aligned}$$

$$\begin{aligned}3. \quad & 5a - u + y = 5 \\& -3a - 4u + 3y = 19 \\& 5a + 2u - y = -9\end{aligned}$$

$$\begin{aligned}7. \quad & 5b - 2c - 5x = 8 \\& 4b + 2c - 3x = 14 \\& 6b - 2c + 3x = 46\end{aligned}$$

$$\begin{aligned}4. \quad & -2a - 4b - 5c = -56 \\& a - 3b - 2c = -20 \\& -5a + 3b = -12\end{aligned}$$

$$\begin{aligned}8. \quad & 6c + u + 3x = -21 \\& 2c + 5u - 4x = -21 \\& 5c - 5u + 5x = 0\end{aligned}$$

## Systèmes Linéaires (J) Solutions

Trouvez les solutions des systèmes d'équations suivants.

$$\begin{aligned}1. \quad & a + 4b - 4z = 7 \\& -3a + b - z = 18 \\& 3a - 2b - 3z = -26 \\& \textcolor{red}{a = -5, b = 4, z = 1}\end{aligned}$$

$$\begin{aligned}5. \quad & 2a + c - y = 6 \\& -a + 5c - 2y = 9 \\& -3a - 5y = -29 \\& \textcolor{red}{a = 3, c = 4, y = 4}\end{aligned}$$

$$\begin{aligned}2. \quad & -5a + 6b + 5u = 50 \\& 3a - 5b = -37 \\& -2b + 4u = -10 \\& \textcolor{red}{a = -4, b = 5, u = 0}\end{aligned}$$

$$\begin{aligned}6. \quad & 4c + 3x - z = 5 \\& 4c - 2x + 2z = -10 \\& -c + 6x = 19 \\& \textcolor{red}{c = -1, x = 3, z = 0}\end{aligned}$$

$$\begin{aligned}3. \quad & 5a - u + y = 5 \\& -3a - 4u + 3y = 19 \\& 5a + 2u - y = -9 \\& \textcolor{red}{a = 0, u = -4, y = 1}\end{aligned}$$

$$\begin{aligned}7. \quad & 5b - 2c - 5x = 8 \\& 4b + 2c - 3x = 14 \\& 6b - 2c + 3x = 46 \\& \textcolor{red}{b = 6, c = 1, x = 4}\end{aligned}$$

$$\begin{aligned}4. \quad & -2a - 4b - 5c = -56 \\& a - 3b - 2c = -20 \\& -5a + 3b = -12 \\& \textcolor{red}{a = 6, b = 6, c = 4}\end{aligned}$$

$$\begin{aligned}8. \quad & 6c + u + 3x = -21 \\& 2c + 5u - 4x = -21 \\& 5c - 5u + 5x = 0 \\& \textcolor{red}{c = -3, u = -3, x = 0}\end{aligned}$$