

Lineare Gleichungssysteme lösen

Aufgabe 1:

Löse das Gleichungssystem

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|-----|--|
| 1) | $y = -2x - 1$
$y = 4x + 5$ |
| 2) | $12x + 3y = 33$
$3x - 3y = 12$ |
| 3) | $y = -4x - 7$
$y = 4x + 17$ |
| 4) | $y = -5x - 3$
$y = 2x + 4$ |
| 5) | $-4x + 4y = -16$
$-20x - 4y = -104$ |
| 6) | $15x - 5y = 60$
$-5x + 5y = -30$ |
| 7) | $2y - 2x = -12$
$y = -4x + 14$ |
| 8) | $y = -1x + 6$
$y = 5x - 6$ |
| 9) | $4y + 8x = 52$
$y = 4x - 11$ |
| 10) | $-8x + 4y = 52$
$-4x - 4y = 8$ |
| 11) | $5y + 15x = 65$
$y = 5x - 19$ |
| 12) | $y = 2x + 5$
$y = 5x + 20$ |
| 13) | $-4x + 2y = 2$
$10x - 2y = -14$ |
| 14) | $-5y - 10x = 65$
$y = 2x + 7$ |
| 15) | $y = 4x - 25$
$y = 1x - 10$ |
| 16) | $15x - 3y = 33$
$-6x + 3y = -6$ |
| 17) | $y = -1x + 2$
$y = 4x - 23$ |
| 18) | $-2x + 2y = -6$
$-10x - 2y = 30$ |
| 19) | $3y - 12x = 45$
$y = -3x - 20$ |
| 20) | $y = 1x - 6$
$y = -5x + 12$ |

Lösung:

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|-----|---------------------|
| 1) | $L = \{ (-1 1) \}$ |
| 2) | $L = \{ (3 -1) \}$ |
| 3) | $L = \{ (-3 5) \}$ |
| 4) | $L = \{ (-1 2) \}$ |
| 5) | $L = \{ (5 1) \}$ |
| 6) | $L = \{ (3 -3) \}$ |
| 7) | $L = \{ (4 -2) \}$ |
| 8) | $L = \{ (2 4) \}$ |
| 9) | $L = \{ (4 5) \}$ |
| 10) | $L = \{ (-5 3) \}$ |
| 11) | $L = \{ (4 1) \}$ |
| 12) | $L = \{ (-5 -5) \}$ |
| 13) | $L = \{ (-2 -3) \}$ |
| 14) | $L = \{ (-5 -3) \}$ |
| 15) | $L = \{ (5 -5) \}$ |
| 16) | $L = \{ (3 4) \}$ |
| 17) | $L = \{ (5 -3) \}$ |
| 18) | $L = \{ (-2 -5) \}$ |
| 19) | $L = \{ (-5 -5) \}$ |
| 20) | $L = \{ (3 -3) \}$ |