

Lösungen zu den Übungen zu lineare Gleichungen I

$2x = 6$	$2x = 6 \quad /:2$ $\Leftrightarrow x = 3$
$x + 4 = 8$	$x + 4 = 8 \quad /-4$ $\Leftrightarrow x = 4$
$3x - 6 = 9$	$3x - 6 = 9 \quad /+6$ $\Leftrightarrow 3x = 15 \quad /:3$ $\Leftrightarrow x = 5$
$-4x + 8 = 12$	$-4x + 8 = 12 \quad /-8$ $\Leftrightarrow -4x = 4 \quad /:(-4)$ $\Leftrightarrow x = -1$
$5x + 7 = -3$	$5x + 7 = -3 \quad /-7$ $\Leftrightarrow 5x = -10 \quad /:5$ $\Leftrightarrow x = -2$
$-8x + 6 = -10$	$-8x + 6 = -10 \quad /-6$ $\Leftrightarrow -8x = -16 \quad /:(-8)$ $\Leftrightarrow x = 2$
$-4 - 5x = -20$	$-4 - 5x = -20 \quad /+4$ $\Leftrightarrow -5x = -16 \quad /:(-5)$ $\Leftrightarrow x = \frac{16}{5} = 3,2$
$-3x - 12 = 15$	$-3x - 12 = 15 \quad /+12$ $\Leftrightarrow -3x = 27 \quad /:(-3)$ $\Leftrightarrow x = -9$
$-4x + 2 = 50 - 16x$	$-4x + 2 = 50 - 16x \quad /+16x$ $\Leftrightarrow 12x + 2 = 50 \quad /-2$ $\Leftrightarrow \Leftrightarrow 12x = 46 \quad /:12$ $\Leftrightarrow \Leftrightarrow x = 4$
$12x + 2 - 6x = -2x + 4$	$12x + 2 - 6x = -2x + 4$ $\Leftrightarrow 6x + 2 = -2x + 4 \quad /+2x \quad /-2$ $\Leftrightarrow 8x = 2 \quad /:8$ $\Leftrightarrow x = 0,25$
$3x - 9x + 2 = 16x - 30x - 6$	$3x - 9x + 2 = 16x - 30x - 6$ $\Leftrightarrow -6x + 2 = -14x - 6$ $\Leftrightarrow 8x = -8$ $\Leftrightarrow x = -1$