Algebra 1 1.5

Solve equations with one variable.

Solve equations with two variables.

open sentence

equation

solution

replacement set try these

→ element

solution set

23. $r = \frac{9(6)}{(8+1)3} = \frac{54}{27} = 2$

24. $a = \frac{4(14-1)}{3(6)-5} + 7$

25. $(4 - 2^2 + 5)w = 25$

$4-4+5$

$(\ 5\ )w = 25$

$5 \cdot 5 = 25$

$w = 5$

GEMA

26. $7 + x - (3 + 3 \cdot 4 \div 8) = 3$

$7 + x + (-7\ ) = 3$

$x + 0 = 3$

$x = 3$

29. $6k + (3 \cdot 7 - 8) = (2 \cdot 3)k + 22$

$6k + 13 = 6k + 22$

30. $(3 \cdot 5)t + (21 - 12) = 15t + 3^2$

$15t + 9 = 15t + 9$

all numbers

31 $(2^4 - 3 \cdot 5)q + 13 = (2 \cdot 9 - 4^2)q + \left(\frac{3 \cdot 4}{12} - 1\right)$

$18 - 16$

$\frac{12}{12}$

$1 - 1$

$(16 = 15)$

$1q + 13 = 2q + 0$

$-1q \quad -1q$

$13 = q + 0$

$q = 13$

Make a table of values for each equation if the replacement set is {−2, −1, 0, 1, 2}.

37. $y = 3x - 2$

x	$y = 3x + 2$	y
−2	$y = -6 + -2$	−8
−1	$y = 3 \cdot -1 + -2$	−5
0	$y = 0 + -2$	−2
1	$y = 3 + -2$	−1
2	$y = 6 + -2$	4

38. $3.25x + 0.75 = y$

−2	$3.25x + 0.75 = y$ $3.25(-2) + 0.75 =$	−5.75
−1		−2.5
0		0.75
1		4
2		7.25

Solve each equation using the given replacement set.

39. $t - 13 = 7$; $\{10, 13, 17, 20\}$

40. $14(x + 5) = 126$; $\{3, 4, 5, 6, 7\}$

$14 \cdot 8 = 126$

$14 \cdot 9 = 126$