Datum: 14.06.2023

Tägliche Übungen

a)	$4 = x - 50$
b)	$16 = a + 40$
c)	$9 = y + 34$
d)	$29 = y - 41$
e)	$12 = y - 34$
f)	$2 = y - 1$
g)	$1 \cdot a + 2 \cdot a - 4 + 1 = 12$
h)	$-1 \cdot b + 8 + 4 \cdot b - 24 = 17$
i)	$-3 + 2 \cdot a - 3 + 1 \cdot a = 3$

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Lösungen Tägliche Übungen

a)

$$
\begin{aligned}
4 &= x - 50 \\
4 &= x - 50 && \mid -4 \\
0 &= x - 54 && \mid -x \\
-x &= -54 && \mid : (-1) \\
x &= 54
\end{aligned}
$$

Probe:

$$
\begin{aligned}
4 &= x - 50 \\
4 &= (54) - 50 \\
4 &= 54 - 50 \\
4 &= 4
\end{aligned}
$$

b)

$$
\begin{aligned}
16 &= a + 40 \\
16 &= a + 40 && \mid -16 \\
0 &= a + 24 && \mid -a \\
-a &= 24 && \mid : (-1) \\
a &= -24
\end{aligned}
$$

Probe:

$$
\begin{aligned}
16 &= a + 40 \\
16 &= (-24) + 40 \\
16 &= -24 + 40 \\
16 &= 16
\end{aligned}
$$

c)

$$
\begin{aligned}
9 &= y + 34 \\
9 &= y + 34 && \mid -9 \\
0 &= y + 25 && \mid -y \\
-y &= 25 && \mid : (-1) \\
y &= -25
\end{aligned}
$$

Probe:

$$
\begin{aligned}
9 &= y + 34 \\
9 &= (-25) + 34 \\
9 &= -25 + 34 \\
9 &= 9
\end{aligned}
$$

d)

$$
\begin{aligned}
29 &= y - 41 \\
29 &= y - 41 && \mid -29 \\
0 &= y - 70 && \mid -y \\
-y &= -70 && \mid : (-1) \\
y &= 70
\end{aligned}
$$

Probe:

$$
\begin{aligned}
29 &= y - 41 \\
29 &= (70) - 41 \\
29 &= 70 - 41 \\
29 &= 29
\end{aligned}
$$

e)

$$
\begin{aligned}
12 &= y - 34 \\
12 &= y - 34 && \mid -12 \\
0 &= y - 46 && \mid -y \\
-y &= -46 && \mid : (-1) \\
y &= 46
\end{aligned}
$$

Probe:

$$
\begin{aligned}
12 &= y - 34 \\
12 &= (46) - 34 \\
12 &= 46 - 34 \\
12 &= 12
\end{aligned}
$$

f)

$$
\begin{aligned}
2 &= y - 1 \\
2 &= y - 1 && \mid -2 \\
0 &= y - 3 && \mid -y \\
-y &= -3 && \mid : (-1) \\
y &= 3
\end{aligned}
$$

Probe:

$$
\begin{aligned}
2 &= y - 1 \\
2 &= (3) - 1 \\
2 &= 3 - 1 \\
2 &= 2
\end{aligned}
$$

g)

$$
\begin{aligned}
1 \cdot a + 2 \cdot a - 4 + 1 &= 12 \\
3 \cdot a - 3 &= 12 && \mid +3 \\
3 \cdot a &= 15 && \mid : (3) \\
a &= 5
\end{aligned}
$$

Probe:

$$
\begin{aligned}
1 \cdot a + 2 \cdot a - 4 + 1 &= 12 \\
1 \cdot (5) + 2 \cdot (5) - 4 + 1 &= 12 \\
5 + 10 - 4 + 1 &= 12 \\
12 &= 12
\end{aligned}
$$

h)

$$
\begin{aligned}
-1 \cdot b + 8 + 4 \cdot b - 24 &= 17 \\
3 \cdot b - 16 &= 17 && \mid +16 \\
3 \cdot b &= 33 && \mid : (3) \\
b &= 11
\end{aligned}
$$

Probe:

$$
\begin{aligned}
-1 \cdot b + 8 + 4 \cdot b - 24 &= 17 \\
-1 \cdot (11) + 8 + 4 \cdot (11) - 24 &= 17 \\
-11 + 8 + 44 - 24 &= 17 \\
17 &= 17
\end{aligned}
$$

i)

$$\begin{aligned} -3+2\cdot a-3+1\cdot a &= 3 \\ 3\cdot a-6 &= 3 \quad |+6 \\ 3\cdot a &= 9 \quad |:(3) \\ a &= 3 \end{aligned}$$

Probe:

$$\begin{aligned} -3+2\cdot a-3+1\cdot a &= 3 \\ -3+2\cdot(3)-3+1\cdot(3) &= 3 \\ -3+6-3+3 &= 3 \\ 3 &= 3 \end{aligned}$$