

Opg 7.1

A) $x - 8 = 20$
 $x = 20 + 8$
 $x = 28$

B) $2x + 5 - 3 = 22$
 $2x = 22 - 5 + 3$
 $2x = 20$
 $x = 20 : 2$
 $x = 10$

C) $z - 3 = 3$
 $x = 3 + 3$
 $x = 6$

D) $x + 1 = 2x - 5$
 $1 + 5 = 2x - x$
 $6 = x$

E) $x - 7 = 14 + 3x$
 $-7 - 14 = 3x - x$
 $-21 = 2x$
 $21 : 2 = x$
 $-10,5 = x$

F) $5x - 1 = x + 7$
 $5x - x = 7 + 1$
 $4x = 8$
 $x = 2$

G) $x - 5 = 2x - 4$
 $-5 + 4 = 2x - x$
 $-1 = x$

H) $2x - 3 = 3x - 5$
 $-3 + 5 = 3x - 2x$
 $2 = x$

I) $4x + 2x - 3x = 6x + 14 - x$
 $-14 = 6x - x - 4x - 2x + 3x$
 $-14 = 2x$
 $-14 : 2 = x$
 $-7 = x$

$$\begin{aligned} \text{J)} \quad 12 + 4 - 6 &= 12x + 4 \\ 12 + 4 - 6 - 4 &= 12x \\ 6 &= 12x \\ 6 : 12 &= x \\ 0,5 &= x \end{aligned}$$

Opg 7.2

$$\begin{aligned} \text{A)} \quad 5 - x &= 10 \\ -x &= 10 - 5 \\ -x &= 5 \\ -5 &= x \end{aligned}$$

$$\begin{aligned} \text{B)} \quad 14 + x &= 7 + 7 \\ x &= 7 + 7 - 14 \\ x &= 0 \end{aligned}$$

$$\begin{aligned} \text{C)} \quad 50 - 13 &= 2x - 3 \\ 50 - 13 + 3 &= 2x \\ 40 &= 2x \\ 40 : 2 &= x \\ 20 &= x \end{aligned}$$

Opg 7.3

$$\begin{aligned} \text{A)} \quad 2x - 33 &= 55 \\ 2x &= 55 + 33 \\ 2x &= 88 \\ 88 : 2 &= x \\ 44 &= x \end{aligned}$$

$$\begin{aligned} \text{B)} \quad -2x + 20 &= 30 \\ -2x &= 30 - 20 \\ -2x &= 10 \\ x &= 10 : 2 \\ x &= 5 \end{aligned}$$

$$\begin{aligned} \text{C)} \quad 0,5x + 30 &= 10 \\ 0,5x &= 10 - 30 \\ x &= -20 : 0,5 \\ x &= -40 \end{aligned}$$

$$\begin{aligned}
 \text{D)} \quad & 0,5x - 40 = 20 \\
 & 0,5x = 20 + 40 \\
 & 0,5x = 60 \\
 & x = 60 : 0,5 \\
 & x = 120
 \end{aligned}$$

Opg 7.4

$$\begin{aligned}
 \text{A)} \quad & -(-5 + 3) + 4x - 2 * 2 = 50 \\
 & 5 - 3 + 4x - 2 * 2 = 50 \\
 & 5 - 3 + 4x - 4 = 50 \\
 & 4x = 50 - 5 + 3 + 3 \\
 & 4x = 52 \\
 & x = 52 : 4 \\
 & x = 13
 \end{aligned}$$

$$\begin{aligned}
 \text{B)} \quad & x + 3 = 3 - (-5 + 3) \\
 & x + 3 = 3 + 5 - 3 \\
 & x = 3 + 5 - 3 - 3 \\
 & x = 2
 \end{aligned}$$

$$\begin{aligned}
 \text{C)} \quad & 25 + (13 + 12) = x - 25 \\
 & 25 + 25 = x - 25 \\
 & 25 + 25 + 25 = x \\
 & 75 = x
 \end{aligned}$$

Opg 7.5

$$\begin{aligned}
 \text{A)} \quad & -3x * (5 + -3 : x) = -51 \\
 & -3x * 5 + -3 * -3 = -51 \\
 & -15x + 9 = -51 \\
 & -15x = -51 - 9 \\
 & -15x = -60 \\
 & x = -60 : 15 \\
 & x = -4
 \end{aligned}$$

$$\begin{aligned}
 \text{B)} \quad & 5x : 5 = 5 \\
 & 5x = 5 * 5 \\
 & 5x = 25 \\
 & x = 25 : 5 \\
 & x = 5
 \end{aligned}$$

$$\begin{aligned}
 \text{C)} \quad & 5 : 2x = 1 \\
 & 5 = 1 * 2x \\
 & 5 = 2x \\
 & 5 : 2 = x \\
 & x = 2,5
 \end{aligned}$$

Opg 7.6

A) $50 * (x + 1 : 2) = 37,5 * 2 + 4 * (25 + 125 : 25)$
 $50x + 25 = 37,5 * 2 + 100 + 20$
 $50x = 37,5 * 2 + 100 + 20 - 25$
 $50x = 170$
 $x = 170 : 50$
 $x = 3,4$

Opg 7.7

A) $4x : 9 = 4 : x$
 $4x * x = 4 * 9$
 $4x = 36$
 $x = 36 : 4$
 $x = 9$