

**Opgave 47:** Løs ligningerne

a)  $6 + x = 18$

$x = \underline{\hspace{2cm}}$

b)  $x - 5 = 10$

$x = \underline{\hspace{2cm}}$

c)  $24 + x = 21$

$x = \underline{\hspace{2cm}}$

d)  $16 - x = 12$

$x = \underline{\hspace{2cm}}$

e)  $4x - 8 = 0$

$x = \underline{\hspace{2cm}}$

f)  $-5x - 2 = 8$

$x = \underline{\hspace{2cm}}$

**Opgave 48:** Løs ligningerne

a)  $3x - 29 = -15x - 11$

$x = \underline{\hspace{2cm}}$

b)  $11x - 13 = 8x - 19$

$x = \underline{\hspace{2cm}}$

c)  $6 - 9x = -2x - 8$

$x = \underline{\hspace{2cm}}$

d)  $7x - 18 = 12x - 13$

$x = \underline{\hspace{2cm}}$

e)  $13x - 28 = 21x + 12$

$x = \underline{\hspace{2cm}}$

f)  $2x + 19 = -23x - 6$

$x = \underline{\hspace{2cm}}$

**Opgave 49:** Løs ligningerne

a)  $-4x + 13 = -7x + 22$

$x = \underline{\hspace{2cm}}$

b)  $-x + 30 = 2x + 3$

$x = \underline{\hspace{2cm}}$

c)  $-x - 20 = 9x - 10$

$x = \underline{\hspace{2cm}}$

d)  $-2x - 6 = -14x - 30$

$x = \underline{\hspace{2cm}}$

e)  $-12x - 29 = x + 23$

$x = \underline{\hspace{2cm}}$

f)  $-5x - 9 = -12x + 5$

$x = \underline{\hspace{2cm}}$

**Opgave 50:** Løs ligningerne, **Hint:** Reducer før ligningen løses.

a)  $2x - 7x + 64 = 29 - 10x - 5x$

$x = \underline{\hspace{2cm}}$

c)  $3(3x + 4) = 2(9 + 3x)$

$x = \underline{\hspace{2cm}}$

e)  $(2x + 5) - (x - 7) = 2$

$x = \underline{\hspace{2cm}}$

b)  $2(x - 4) = -x + 5 - 13 + 3x$

$x = \underline{\hspace{2cm}}$

d)  $2(x - 4) = 12$

$x = \underline{\hspace{2cm}}$

f)  $3(x + 2) = 15$

$x = \underline{\hspace{2cm}}$

**Opgave 51:** Løs ligningerne. **Hint:** Nævneren flyttes over på anden side ved at gange.

a)  $\frac{x}{3} = 2$

$x = \underline{\hspace{2cm}}$

c)  $\frac{4+x}{x} = 3$

$x = \underline{\hspace{2cm}}$

e)  $\frac{4}{2x+1} = 1$

$x = \underline{\hspace{2cm}}$

b)  $\frac{20}{x} = 5$

$x = \underline{\hspace{2cm}}$

d)  $\frac{6-x}{3+2x} = 1$

$x = \underline{\hspace{2cm}}$

f)  $\frac{6x}{x-5} = 2$

$x = \underline{\hspace{2cm}}$

**Ekstra Opgave 9:** Jørgen og Sten deler 45 kr. Jørgen får dobbelt så meget som Sten. Hvor meget får hver?

**Facit:** -11, -10, -5, -4, -3, -3½, -2 ½, -2, -2, -2, -1, -1, -1, 1, 0, 1, 1, 1 ½, 2, 2, 2, 2, 2, 3, 3, 4, 4, 6, 7, 9, 10, 12, 15, 15, 30, 60