

## Mérleg-elv alapfeladatok (1)

1. Oldd meg az egyenleteket a minta alapján!

a)  $8x + 55 = 167$   $\boxed{-55}$     b)  $-10 + 2x = 18$   $\boxed{+10}$     c)  $5x - 14 = 56$   $\boxed{+14}$   
 $8x = 112$   $\boxed{:8}$                        $2x = 28$   $\boxed{:2}$                        $5x = 70$   $\boxed{:5}$   
 $x = 14$                                        $x = 14$                                        $x = 14$

Feladatok:

(1)  $-24 + 9x = 84$   $\boxed{\phantom{00}}$     (2)  $-27 + 4x = 17$   $\boxed{\phantom{00}}$     (3)  $3x + 30 = 75$   $\boxed{\phantom{00}}$   
 $9x = \boxed{\phantom{00}}$                        $4x = \boxed{\phantom{00}}$                        $3x = \boxed{\phantom{00}}$   
 $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$

(4)  $-71 + 7x = 48$   $\boxed{\phantom{00}}$     (5)  $12x - 94 = 146$   $\boxed{\phantom{00}}$     (6)  $-7 + 3x = 29$   $\boxed{\phantom{00}}$   
 $7x = \boxed{\phantom{00}}$                        $12x = \boxed{\phantom{00}}$                        $3x = \boxed{\phantom{00}}$   
 $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$

(7)  $8x + 49 = 177$   $\boxed{\phantom{00}}$     (8)  $-44 + 6x = 82$   $\boxed{\phantom{00}}$     (9)  $-52 + 15x = 113$   $\boxed{\phantom{00}}$   
 $8x = \boxed{\phantom{00}}$                        $6x = \boxed{\phantom{00}}$                        $15x = \boxed{\phantom{00}}$   
 $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$

2. Oldd meg az egyenleteket a minta alapján!

a)  $12x - 52 = -196$   $\boxed{+52}$     b)  $-3x + 15 = -21$   $\boxed{-15}$     c)  $-2x + 5 = 27$   $\boxed{-5}$   
 $12x = -144$   $\boxed{:12}$                        $-3x = -36$   $\boxed{:(-3)}$                        $-2x = 22$   $\boxed{:(-2)}$   
 $x = -12$                                        $x = 12$                                        $x = -11$

Feladatok:

(1)  $10x - 55 = 145$   $\boxed{\phantom{00}}$     (2)  $51 = -19 - 7x$   $\boxed{\phantom{00}}$     (3)  $-90 = 134 + 14x$   $\boxed{\phantom{00}}$   
 $10x = \boxed{\phantom{00}}$                        $= -7x$   $\boxed{\phantom{00}}$                        $= 14x$   $\boxed{\phantom{00}}$   
 $x = \boxed{\phantom{00}}$                                        $= x$                                        $= x$

(4)  $-16 = 5x + 59$   $\boxed{\phantom{00}}$     (5)  $89 - 10x = 249$   $\boxed{\phantom{00}}$     (6)  $7 = -27 - 2x$   $\boxed{\phantom{00}}$   
 $= 5x$   $\boxed{\phantom{00}}$                        $-10x = \boxed{\phantom{00}}$                        $= -2x$   $\boxed{\phantom{00}}$   
 $= x$                                        $x = \boxed{\phantom{00}}$                                        $= x$

(7)  $-120 + 8x = -296$   $\boxed{\phantom{00}}$     (8)  $-65 - 7x = 33$   $\boxed{\phantom{00}}$     (9)  $-268 = -12x - 52$   $\boxed{\phantom{00}}$   
 $8x = \boxed{\phantom{00}}$                        $-7x = \boxed{\phantom{00}}$                        $= -12x$   $\boxed{\phantom{00}}$   
 $x = \boxed{\phantom{00}}$                                        $x = \boxed{\phantom{00}}$                                        $= x$

3. Oldd meg az egyenleteket a minta alapján!

$$\begin{aligned} \text{a) } -32 + 12x &= 10x + 40 & /- 10x \\ -32 + \boxed{2x} &= 40 & /+ 32 \\ \boxed{2x} &= \boxed{72} & :2 \\ x &= 36 \end{aligned}$$

$$\begin{aligned} \text{b) } -161 - x &= 119 - 11x & /+ 11x \\ -161 + \boxed{10x} &= 119 & /+161 \\ \boxed{10x} &= \boxed{280} & :10 \\ x &= 28 \end{aligned}$$

Feladatok:

$$\begin{aligned} (1) \quad -59 + 11x &= 73 + 7x & /-7x \\ -59 + \boxed{\phantom{00}} &= 73 & /+ 59 \\ \boxed{\phantom{00}} &= \boxed{\phantom{00}} & \boxed{\phantom{00}} \\ x &= \end{aligned}$$

$$\begin{aligned} (2) \quad -21 + 4x &= 3x + 12 & /- 3x \\ -21 + \boxed{\phantom{00}} &= 12 & /+ 21 \\ \boxed{\phantom{00}} &= \boxed{\phantom{00}} & \boxed{\phantom{00}} \\ x &= \end{aligned}$$

$$\begin{aligned} (3) \quad -210 - 5x &= -13x + 62 & /+ 13x \\ -210 + \boxed{\phantom{00}} &= 62 & /+ 210 \\ \boxed{\phantom{00}} &= \boxed{\phantom{00}} & \boxed{\phantom{00}} \\ x &= \end{aligned}$$

$$\begin{aligned} (4) \quad -4x - 24 &= 40 - 6x & /+ 6x \\ \boxed{\phantom{00}} - 24 &= 40 & /+ 24 \\ \boxed{\phantom{00}} &= \boxed{\phantom{00}} & \boxed{\phantom{00}} \\ x &= \end{aligned}$$

$$\begin{aligned} (5) \quad 9x - 111 &= -x + 159 & /+ x \\ \boxed{\phantom{00}} - 111 &= 159 & /+ 111 \\ \boxed{\phantom{00}} &= \boxed{\phantom{00}} & \boxed{\phantom{00}} \\ x &= \end{aligned}$$

$$\begin{aligned} (6) \quad 10x - 128 &= 3x + 54 & /- 3x \\ \boxed{\phantom{00}} - 128 &= 54 & /+ 128 \\ \boxed{\phantom{00}} &= \boxed{\phantom{00}} & \boxed{\phantom{00}} \\ x &= \end{aligned}$$