

STACK - Yhtälö

$$\begin{aligned} 1) \quad 10x + 9 &= 1x + 4 \\ 10x - 1x &\stackrel{\Leftrightarrow}{=} 4 - 9 \\ 9x &= -5 \quad || : 9 \\ x &= -\frac{5}{9} \end{aligned}$$

$$\begin{aligned} 2) \quad 11x - H &= Mx + 6 \\ 11x - Mx &= 6 + H \quad || : 11 - M \\ x &= \frac{6 + H}{11 - M} \end{aligned}$$

$$\begin{aligned} 3) \quad \frac{6x}{2+5} &= \frac{3}{6} \\ 36x &= 3x + 15 \\ 36x - 3x &= 15 \\ 33x &= 15 \quad || : 33 \\ x &= \frac{15}{33} = \frac{5}{11} \end{aligned}$$

$$\begin{aligned} 4) \quad \frac{8x-7}{4} - x &= 5x + \frac{3}{3} \quad || \cdot 4 \\ 8x-7-4x &= 20x+4 \\ 8x-4x-20x &= 4+7 \\ -16x &= 11 \quad || : -16 \\ x &= -\frac{11}{16} = -0,6875 \approx -0,688 \end{aligned}$$

$$\begin{aligned} 5) \quad \frac{4x-9}{2} - x &= 7 - \frac{8-x}{2} \quad || \cdot 2 \\ 4x-9-2x &= 14-8+x \\ 4x-2x-x &= 14-8+9 \\ x &= 15 \end{aligned}$$

$$\begin{aligned} 6) \quad T &= \frac{1}{2} av \quad || \cdot 2 \\ 2T &= av \quad || : v \\ \frac{2T}{v} &= a \end{aligned}$$

$$\begin{aligned} 7) \quad B &= \frac{4\pi}{b+c} \\ B(b+c) &= 4\pi \\ Bb + Bc &= 4\pi \\ Bb &= 4\pi - Bc \quad || : B \\ b &= \frac{4\pi - Bc}{B} \\ &= \frac{4\pi}{B} - \frac{Bc}{B} \\ &= \frac{4\pi}{B} - c \end{aligned}$$

$$\begin{aligned} 8) \quad E &= \frac{nG}{j+nk} \\ E(j+nk) &= nG \\ Ej + Enk &= nG \\ Ej &= nG - Enk \\ [Ej] &= n(G - Ek) \\ n &= \frac{Ej}{G - Ek} \end{aligned}$$