

Rezolvare

$$1. \begin{cases} 2a + b = 3 \\ 4a + b = 7 \end{cases} \Rightarrow a = 2; b = -1 \Rightarrow f(x) = 2x - 1$$

$$2. \vec{v} = 4\vec{a} - 2\vec{b} + \vec{c} = 29\vec{i} - 29\vec{j}$$

$$3. \cos(180^\circ - 45^\circ) + \cos 45^\circ = -\cos 45^\circ + \cos 45^\circ = 0$$

$$4. S = 6; P = 4 \Rightarrow \frac{x_1}{x_2} + \frac{x_2}{x_1} = \frac{x_1^2 + x_2^2}{x_1 x_2} = \frac{S^2 - 2P}{P} = 7$$

$$5. 2^x + 4^x + 4 = 10 \Rightarrow 4^x + 2^x - 6 = 0$$

$$\text{Not } 2^x = t > 0 \Rightarrow t^2 + t - 6 = 0 \Rightarrow t_1 = -3; t_2 = 2 \Rightarrow 2^x = 2 \Rightarrow x = 1$$

$$6. |2 - 3\sqrt{2}| + |3 - 2\sqrt{2}| = 3\sqrt{2} - 2 + 3 - 2\sqrt{2} = 1 + \sqrt{2}$$