

1.3.1
2

$$\begin{cases} m(x_1 + x_2) - x_1 x_2 = 3m + 4 \\ x_1 + x_2 + 2x_1 x_2 = 0 \end{cases}$$

$$x_1 x_2 = B, \quad x_1 + x_2 = A \quad (10)$$

$$\begin{cases} mA - B = 3m + 4 \\ A + 2B = 0 \end{cases}$$

$$\begin{cases} A = -2B \\ -2Bm - B = 3m + 4 \rightarrow B = -\frac{3m+4}{2m+1} \quad A = \frac{6m+8}{2m+1} \end{cases}$$

$$x^2 + \frac{6m+8}{2m+1}x - \frac{3m+4}{2m+1} = 0 \quad \text{מחלקים את המשוואה ב-}(2m+1)$$

$$(2m+1)x^2 - (6m+8)x - 3m-4 = 0$$

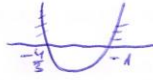
$(m \neq -\frac{1}{2}) \quad \Delta > 0 \quad \text{יש שני פתרונות}$

$$0 < (6m+8)^2 - 4(2m+1)(-3m-4)$$

$$0 < 36m^2 + 96m + 64 + 24m^2 + 44m + 16$$

$$0 < 60m^2 + 140m + 80 \quad /:20$$

$$0 < 3m^2 + 7m + 4$$



$$m < -\frac{4}{3} \quad \vee \quad -\frac{1}{2} < m < -1$$