

Β ΛΥΚΕΙΟΥ ΘΕΤΙΚΟΣ ΠΡΟΣΑΝΑΤΟΛΙΣΜΟΣ

9.4 1)

α) Είναι $\lambda_{AB} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5-2}{6-(-1)} = \frac{3}{7}$ και $\lambda_{\Gamma\Delta} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-3-0}{-9-(-2)} = \frac{-3}{-7} = \frac{3}{7}$, οπότε

$$\lambda_{AB} = \lambda_{\Gamma\Delta} \Rightarrow AB // \Gamma\Delta$$

β) Είναι $\lambda_{AB} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5-2}{6-(-1)} = \frac{3}{7}$ και $\lambda_{EZ} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{6-(-1)}{-2-1} = \frac{7}{-3} = -\frac{7}{3}$, οπότε

$$\lambda_{AB} \cdot \lambda_{\Gamma\Delta} = -1 \Rightarrow AB \perp \Gamma\Delta$$

9.4 2)

Είναι $\lambda_{AB} = \frac{4-(-2)}{1-3} = \frac{6}{-2} = -3$ και $\lambda_{\Gamma\Delta} = \frac{3-0}{1-2} = \frac{3}{-1} = -3$

Οπότε $\lambda_{AB} = \lambda_{\Gamma\Delta} \Rightarrow AB // \Gamma\Delta$

9.4 3)

Είναι $\lambda_{AG} = \frac{3-(-1)}{7-3} = \frac{4}{4} = 1$ και $\lambda_{B\Delta} = \frac{-2-0}{4-6} = \frac{-2}{-2} = 1$

Οπότε $\lambda_{AG} = \lambda_{B\Delta} \Rightarrow AG // B\Delta$

9.4 4)

Είναι $\lambda_{AB} = \frac{5-3}{-4-2} = \frac{2}{-6} = -\frac{1}{3}$ και $\lambda_{\Gamma\Delta} = \frac{9-5}{-7-5} = \frac{4}{-12} = -\frac{1}{3}$

Οπότε $\lambda_{AB} = \lambda_{\Gamma\Delta} \Rightarrow AB // \Gamma\Delta$

9.4 5)

Είναι $\lambda_{AB} = \frac{3-4}{-1-2} = \frac{1}{3}$ και $\lambda_{\Gamma\Delta} = \frac{5-2}{5-6} = -3$

Οπότε $\lambda_{AB} \cdot \lambda_{\Gamma\Delta} = -1 \Rightarrow AB \perp \Gamma\Delta$

9.4 6)

Είναι $\lambda_{AB} = \frac{3-2}{3-1} = \frac{1}{2}$ και $\lambda_{\Gamma\Delta} = \frac{5-(-1)}{-1-2} = \frac{6}{-3} = -2$

Οπότε $\lambda_{AB} \cdot \lambda_{\Gamma\Delta} = -1 \Rightarrow AB \perp \Gamma\Delta$

9.4 7)

Είναι $\lambda_{\Gamma\Delta} = \frac{3-5}{1-5} = \frac{-2}{-4} = \frac{1}{2}$, $\lambda_{\Delta\Lambda} = \frac{1-3}{2-1} = -2$ και $\lambda_{AB} = \frac{4-1}{8-2} = \frac{3}{6} = \frac{1}{2}$

Οπότε $\lambda_{\Gamma\Delta} \cdot \lambda_{\Delta\Lambda} = -1 \Rightarrow \Gamma\Delta \perp \Delta\Lambda$ και $\lambda_{AB} \cdot \lambda_{\Delta\Lambda} = -1 \Rightarrow AB \perp \Delta\Lambda$

Άρα το ΑΒΓΔ είναι ορθογώνιο τραπέζιο