

$$\alpha) \Delta = 9 + 16 = 25 \quad X_{1,2} = \frac{3 \pm 5}{2} \begin{cases} 4 \\ -1 \end{cases}$$

$$\beta) \alpha^2 - 3\alpha\beta - 4\beta^2 = 0$$

$$(i) \frac{\alpha^2}{\beta^2} - 3\frac{\alpha}{\beta} - 4 = 0 \Rightarrow \alpha^2 - 3\alpha\beta - 4\beta^2 = 0$$

10x64.

$$(ii) \frac{\alpha}{\beta} = 4 \Rightarrow \alpha = 4\beta$$