

ΤΑΞΗ:Γ΄
ΔΙΑΓΩΝΙΣΜΑ-ΡΗΤΕΣ ΑΛΓΕΒΡΙΚΕΣ ΠΑΡΑΣΤΑΣΕΙΣ

1. Να απλοποιήσετε τις πιο κάτω παραστάσεις :

$$\alpha) \frac{-9\chi^2\psi\omega^4}{21\chi^2\psi^3\omega} = \quad (\beta.0, 75)$$

$$\beta) \frac{\chi^2 - 3\chi\psi}{3\psi^2 - \chi\psi} = \quad (\beta.1)$$

$$\gamma) \frac{5\chi^2 - 20}{\chi^2 + 4\chi + 4} = \quad (\beta.1, 25)$$

$$\delta) \frac{7\alpha^3 - 7\beta^3}{\alpha^2 + \alpha\beta + \beta^2} = \quad (\beta.1, 25)$$

2. Να κάνετε τις πράξεις :

$$\alpha) \frac{8\beta^2}{\alpha^3} : \frac{2\beta\gamma^3}{\alpha^2} = \quad (\beta.1)$$

$$\beta) \frac{2}{\psi^3} - \frac{3}{\psi^2} + \frac{7}{\psi} = \quad (\beta.1)$$

$$\gamma) \frac{3\chi - 12}{\chi^2 - 16} \cdot \frac{\chi^3 - 16\chi}{\chi^2 - 4\chi} = \quad (\beta.1, 25)$$

$$\delta) \frac{\alpha^3 - \alpha\chi^2}{\beta\gamma^2 - \beta\chi^2} \cdot \frac{\beta\gamma + \beta\chi}{\alpha^2 - \alpha\chi} = \quad (\beta.1, 75)$$

$$\varepsilon) \frac{\alpha - \beta}{\alpha + \beta} \div \frac{6\alpha - 6\beta}{\alpha^2 + 2\alpha\beta + \beta^2} = \quad (\beta.1, 5)$$

$$\sigma\tau) \frac{\alpha^2 + 3\alpha}{9 - \alpha^2} \div \frac{\alpha^2 - 5\alpha}{\alpha^2 - 8\alpha + 15} = \quad (\beta.1, 75)$$

$$\zeta) \frac{2}{5 - \chi} - \frac{5}{\chi^2 - 25} - \frac{1}{\chi + 5} = \quad (\beta.1, 5)$$

$$\eta) \frac{1}{\chi\psi + \chi^2} + \frac{1}{\psi^2 + \chi\psi} - \frac{1}{\chi\psi} = \quad (\beta.1, 75)$$

$$\theta) \left(\frac{3}{\alpha^2 - 9} + \frac{1}{\alpha + 3} \right) \div \frac{\alpha}{\alpha^2 - 6\alpha + 9} = \tag{\beta.2, 25}$$

$$\text{ı) } \frac{\frac{\chi^2 - \chi}{\chi + 1} + \chi}{\chi - \frac{\chi - 1}{\chi + 1}} = \tag{\beta.2}$$