

۱۹, ۲۵

$$\frac{-\Delta}{f_a} = \frac{f_{ac} - b^2}{f_a}$$

$$\frac{-12 - b^2}{-4} = 4$$

$$-12 - b^2 = -16$$

$$b^2 = 4$$

$$b = \pm 2 \checkmark$$

(۲)

الف: $x^2 = t^2 + 2t + 3$

$$\Delta < 0 \quad \checkmark$$

ب: $4 - x^2 = t^2 + 2t - 1 = 0 \quad (t-1)(t+3) = 0$

$$4 - x^2 = 1 \quad x^2 = 3 \quad x = \pm \sqrt{3}$$

$$4 - x^2 = -1 \quad x^2 = 5 \quad x = \pm \sqrt{5} \checkmark$$

(۲)

$$x_1 = \alpha$$

$$x_2 = \alpha + 2$$

$$x_1 + x_2 = \alpha + \alpha + 2 = 2\alpha + 2 = 4 \quad 2\alpha = 2 \quad \alpha = 1$$

$$x_1 = 1 \checkmark$$

$$x_2 = 3 \checkmark$$

$$x_1 x_2 = 1 \times 3 = 3$$

$$\frac{m}{-4} = 3$$

$$m = -12 \checkmark$$

(۲)

$$\alpha + B = 2$$

$$2\alpha - B = 4$$

$$3\alpha = 6$$

$$\alpha = 2$$

$$4 - B = 4$$

$$B = 0$$

$$\alpha B = 2 \times 0 = 0$$

$$\frac{m-1}{3} = 0$$

$$m-1 = 0$$

$$m = 1 \checkmark$$

(۲)

(۱, ۷, ۵)

$$x_1 = \alpha$$

$$x_2 = \frac{1}{\alpha}$$

$$x_1 x_2 = \alpha \times \frac{1}{\alpha} = 1$$

$$\frac{m^2 - 2}{-m} = 1$$

$$m^2 + m - 2 = 0$$

$$(m+2)(m-1) = 0$$

$$m = -2 \quad \Delta = 0 \quad \checkmark$$

$$m = 1 \checkmark$$

۵

$$\alpha B = \mu$$

$$\alpha B^r = \mu$$

$$B = \frac{\mu}{\alpha}$$

$$\frac{F\alpha}{\mu} = \mu$$

$$q = F\alpha$$

$$\alpha = \frac{q}{F}$$

(2)

$$\alpha + B = \frac{\mu}{\alpha} + \frac{q}{F} = \frac{19 + 2V}{1F} = \frac{F\mu}{1F}$$

$$\frac{m}{1} = \frac{F\mu}{1F}$$

$$m = \frac{F\mu}{1F} \checkmark$$

$$n_1 = \alpha$$

$$n_r = \mu\alpha$$

$$\alpha + \mu\alpha = \mu$$

$$\alpha = 1$$

$$n_1 n_r = 1 \times \mu$$

$$m = \mu \checkmark$$

$$n_1 = 1$$

$$n_r = \mu$$

(2)

$$\alpha^r + \frac{\Delta}{\alpha^r} = \left(\alpha + \frac{\mu}{\alpha} \right) \left(\alpha^r + \frac{F}{\alpha^r} - \mu \right)$$

$$\alpha^r + \frac{F}{\alpha^r} = \frac{\alpha^r + \mu}{\alpha^r} = \frac{(\alpha^r + \mu)^r - F\alpha^r}{\alpha^r}$$

$$\alpha^r - V\alpha + \mu = 0$$

$$\alpha^r + \mu = V\alpha$$

$$\frac{\alpha^r + \mu}{\alpha} = \frac{V\alpha}{\alpha} = V$$

$$\frac{Fq\alpha^r - F\alpha^r}{\alpha^r} = \frac{F\Delta\alpha^r}{\alpha^r} = F\Delta$$

$$V \times F\mu = \mu \checkmark$$

$$\frac{-\Delta}{F\alpha} = \frac{F\alpha c - b^r}{F\alpha} = \frac{-F\omega_{00}}{-F_0} = gF\omega \checkmark$$

(2)

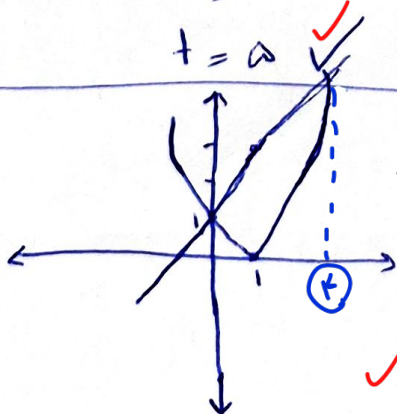
$$-10 + \mu + \omega_0 t = 0$$

$$10 + (\omega - t) = 0$$

$$t = 0 \quad x$$

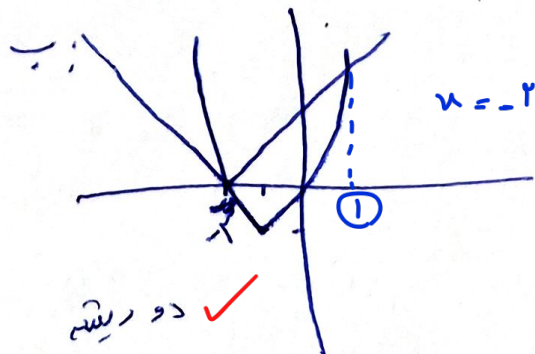
$$t = \omega \quad \checkmark$$

الف:



$$u = 0, F$$

دو ریشه



$$u = -2, 1$$

دو ریشه

(1, 2)

10