

$$x^r - 11x + 2A = 0 \rightarrow (x-V)(x-f) \rightarrow x=f \quad x=V$$

$\begin{matrix} -f-V & & f \times V \\ & \downarrow & \\ & (-V)(-f) & \end{matrix}$

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$$x^r + 4x - 2A = 0 \rightarrow (x+V)(x-f) \rightarrow x=f \quad x=-V$$

$\begin{matrix} V-f & & V \times (-f) \\ & \downarrow & \\ & (-V)(-f) & \end{matrix}$

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$$\omega x^r - 12x + V = 0 \rightarrow x^r - 12x + 3\omega = 0 \rightarrow (x-V)(x+\omega) \rightarrow x=V \rightarrow \frac{V}{\omega}$$

$x=\omega \rightarrow 1$ ✓

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$$3x^r - 10x + V = 0 \rightarrow x^r - 10x + 21 = 0 \rightarrow x^r - 10x + 21 = 0 \rightarrow (x+(-\omega))^r = f \rightarrow (x-\omega)^r = f$$

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$$\rightarrow x-\omega = \pm r \rightarrow x=3 \rightarrow 1$$

$x=V \rightarrow \frac{V}{r}$ ✓

$$2x^r - \omega x + 4 \quad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{\omega \pm \sqrt{\omega^2 - 16}}{2} = \frac{\omega \pm 1}{2} \quad \begin{cases} x = \frac{\omega}{r} \\ x = 1 \end{cases}$$

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$$2x^r + \omega x + 4 \rightarrow a+c=b \quad \begin{cases} x=1 \\ x = -\frac{c}{a} = -\frac{4}{r} \end{cases}$$

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$$2x^r - \omega x + 1 \rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \frac{\omega \pm \sqrt{\omega^2 - 4}}{2} \rightarrow \frac{\omega \pm \sqrt{12}}{2}$$

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$$4x^r + Vx + 9 \rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-V \pm \sqrt{V^2 - 36}}{4}$$

معادله ریشه درجه دوم
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$$x^r - 4x - 2 \rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \frac{4 \pm \sqrt{16 - (-8)}}{2} = \frac{4 \pm \sqrt{24}}{2}$$

$$S = -\frac{b}{a} \quad P = \frac{c}{a} \quad S=4 \quad P=-2$$

$$S^r - rP = 4 - 2(-2) = 12$$

$$S^r - rSP = 4 - 2(4(-2)) = 4V + 16 = 4\omega$$

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$$\binom{V}{\omega} + \binom{9}{r} = \frac{V!}{\omega!(V-\omega)!} + \frac{9!}{r!(9-r)!} = \frac{V \times 8 \times \omega!}{\omega! \times 8!} + \frac{9 \times 8 \times 7!}{7! \times 8!} = 21 + 39 = 60V$$

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$$\binom{9}{r} - \binom{11}{r} = \frac{9!}{r!(9-r)!} - \frac{11!}{r!(11-r)!} = \frac{9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{r! \times 8!} - \frac{11 \times 10 \times 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1}{r! \times 10!} = 11 \times V - 4 = 11F - F = 10$$

$\binom{11}{r} = \frac{11 \times V \times 9!}{(11-r)! \times r!} = \frac{11V}{r} = 21$

$11F - 11 = 64$

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