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فاصله بین دو نقطه
1- اگر تابع

$$-\frac{\Delta}{\epsilon a} = V \rightarrow \frac{-(b^2 - \epsilon(-r))}{\epsilon} \rightarrow \frac{b^2 + 12}{\epsilon} = V \rightarrow b^2 + 12 = 28 \rightarrow b^2 = 16 \rightarrow b = \pm 4$$

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الف) $f(m) = m^2 + 3m + 3$
 $m^2 = 4 \rightarrow 4^2 + 12 + 3 \rightarrow 29$
 (مقدار مثبت است پس در صورتی که منفی باشد)

2- معادله درجه دوم را در صورتی که وجود داشته باشد داریم
 $f(m) = (\epsilon - m^2)^2 - 2(\epsilon - m^2) - 15$
 $\rightarrow 4^2 - 2 \cdot 4 - 15 \rightarrow (4-5)(4+3) \rightarrow t = 5$
 $\rightarrow t = -3$
 $\epsilon - m^2 = 5 \rightarrow m^2 = -1 \rightarrow$ غایب
 $\epsilon - m^2 = -3 \rightarrow m^2 = 7 \rightarrow m = \pm\sqrt{7}$ مقبول

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3- در معادله $\epsilon a^2 - 14a + m = 0$ اگر ϵ از جوابها در واحد ارجو...
 $|a - B| = 2 \rightarrow \frac{\sqrt{\Delta}}{|a|} = 2 \rightarrow \frac{\sqrt{254 - 14m}}{\epsilon} = 2 \rightarrow \sqrt{254 - 14m} = 2\epsilon$
 $254 - 14m = 4\epsilon \rightarrow 254 - 14m = 48$
 $14m = 192 \rightarrow m = 14$
 $\alpha + B = \epsilon$
 $\alpha - B = 2$
 $\rightarrow \alpha = 4$
 $\rightarrow \alpha = 3$
 $\rightarrow \epsilon = 1$

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4- $m - \epsilon$ اقل است...
 $2\alpha^2 - 4\alpha + m - 1 = 0$
 $2\alpha - B = \epsilon$
 $\alpha + B = 2$
 $2\alpha - B = \epsilon$
 $\rightarrow 3\alpha = 4 \rightarrow \alpha = \frac{4}{3}$
 $\rightarrow \frac{m-1}{3} = 0 \rightarrow m = 1$
 $2\alpha^2 - 4\alpha = 0$ دیتو ✓

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5- $-\frac{m}{a} m^2 + \epsilon m + \frac{m^2}{c} - 2 \rightarrow \frac{m^2 - 2}{-m} = 1 \rightarrow m^2 - 2 = -m \rightarrow m^2 + m - 2 = 0$
 $m = -2 \rightarrow 2m^2 + \epsilon m + 2 \rightarrow 14 - \epsilon(2) = 0 \rightarrow \epsilon = 7$
 $m = 1 \rightarrow -m^2 + \epsilon m - 1 \rightarrow 14 - \epsilon(1) \rightarrow 13 \checkmark \rightarrow m = 1$

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6- $m^2 - mn + 3 = 0$
 $\alpha B = 3, \alpha B^2 = \epsilon \rightarrow B = \frac{\epsilon}{\alpha}, \alpha = \frac{9}{\epsilon}$
 $m = \frac{\epsilon}{\alpha} = \frac{\epsilon}{\frac{9}{\epsilon}} = \frac{\epsilon^2}{9} + \frac{9}{\epsilon} = \frac{14 + 27}{12} = \frac{41}{12}$
 $2\alpha^2 - \frac{4\alpha}{12} + 3 = 0$ دیتو ✓

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7- $m^2 - \epsilon m + m = 0$
 $\rightarrow \alpha$
 $\rightarrow 3\alpha$
 $\rightarrow \alpha \times 3\alpha = 1 \times 3(1) = 3$
 $\rightarrow \alpha + 3\alpha = \epsilon \rightarrow \alpha = 1 \rightarrow m = 3$
 $2\alpha^2 - 3\alpha + 3 = 0$ دیتو ✓

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$x^2 - 7x + 12 = 0 \rightarrow x^2 + \frac{1}{x^2} \rightarrow \left(x + \frac{1}{x}\right) \left(x + \frac{1}{x} - 1\right) \rightarrow \left(\frac{x^2 + 1}{x}\right) \left(\frac{x^2 - x + 1}{x}\right) = \frac{(x^2 - 4)}{(x^2)}$
 $\rightarrow x^2 \times 1 \rightarrow \boxed{301}$

$h(t) = -10t^2 + 20t \rightarrow a = \frac{-20}{-20} = \left(\frac{20}{20}\right) \rightarrow -10\left(\frac{20}{20}\right)^2 + 20\left(\frac{20}{20}\right) =$
 $-10\left(\frac{20}{20}\right) + 20 = -\frac{120}{20} + 20 = \frac{120}{20} = \boxed{420}$

زمان چقدر؟ $\rightarrow$ $\frac{1}{2}at^2 = 10t^2 = 10 \rightarrow t^2 = 1 \rightarrow t = 1$ (ثانیه)

