

۱۸، ۷، ۵

پاسخنامه تشریحی تکلیف شماره کلاس

نام و نام خانوادگی شماره برگه شماره سوال

۱	$\frac{\Delta x}{\Delta t} = \frac{-y-1}{t^2-t} = \frac{-1}{t} = -\frac{1}{t}$ $y_0 = \frac{t^2+t}{2} = \frac{1+1}{2} = 1$ $x-1 = \frac{1}{2}x - \frac{1}{2} \rightarrow x = \frac{1}{2}x + \frac{1}{2}$	(۲)
۲	$\frac{1}{2} \begin{vmatrix} 1 & 1 & 1 \\ -1 & 1 & 1 \\ 1 & 1 & 1 \end{vmatrix} = \frac{1}{2} (1-1-1+1+1+1) = \frac{1}{2} (1) = \frac{1}{2}$ $D_C = \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{(-1+1)^2 + (1-1)^2} = \sqrt{0+0} = 0$ $B_C = \frac{1}{\sqrt{1+1}} = \frac{1}{\sqrt{2}}$	(۳)
۳	$x^2 - 2x - 1 = 0 \rightarrow x = 1 \pm \sqrt{2}$ $x_1 = 1 + \sqrt{2}, x_2 = 1 - \sqrt{2}$ $ x_1 - x_2 = 1 + \sqrt{2} - (1 - \sqrt{2}) = 2\sqrt{2} = 2\sqrt{2}$	(۴)
۴	$x^2 - 2x - 1 = 0 \rightarrow x = 1 \pm \sqrt{2}$ $x_1 = 1 + \sqrt{2}, x_2 = 1 - \sqrt{2}$ $ x_1 - x_2 = 1 + \sqrt{2} - (1 - \sqrt{2}) = 2\sqrt{2} = 2\sqrt{2}$	(۵)

مواضع متنی است که به اب میانی ندارد

1. $\frac{1}{x} = x^{-1}$ Derivative: $\frac{d}{dx} x^{-1} = -1 x^{-2} = -\frac{1}{x^2}$ Answer: $-\frac{1}{x^2}$	2. $\frac{1}{x^2} = x^{-2}$ Derivative: $\frac{d}{dx} x^{-2} = -2 x^{-3} = -\frac{2}{x^3}$ Answer: $-\frac{2}{x^3}$	3. $\frac{1}{x^3} = x^{-3}$ Derivative: $\frac{d}{dx} x^{-3} = -3 x^{-4} = -\frac{3}{x^4}$ Answer: $-\frac{3}{x^4}$	4. $\frac{1}{x^4} = x^{-4}$ Derivative: $\frac{d}{dx} x^{-4} = -4 x^{-5} = -\frac{4}{x^5}$ Answer: $-\frac{4}{x^5}$	5. $\frac{1}{x^5} = x^{-5}$ Derivative: $\frac{d}{dx} x^{-5} = -5 x^{-6} = -\frac{5}{x^6}$ Answer: $-\frac{5}{x^6}$
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$$A(1,1) \\ \underbrace{m = \left(\frac{1}{r}, \frac{r}{r}\right)}_{B, C} \quad \left\{ \begin{array}{l} AM = \frac{\sqrt{a_0}}{r} \end{array} \right.$$

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$$BC; \text{Answer} = AH = \frac{|1+1-r|}{\sqrt{r}} = \sqrt{r}$$

$$\frac{AM}{AH} = \frac{a}{r}$$