

$$f(x) = a(x-5) + b(x+5)$$

$$\lim_{x \rightarrow 5} f(x) = \lim_{x \rightarrow 5} f'(x) = \lim_{x \rightarrow 5} f''(x)$$

$$= -a(x+5) + b(x+5)$$

$$-ax + 5a + bx + 5b = ax - 5a + 5b + bx$$

$$10a = 2ax$$

$$x = 5$$

$$(-a(x+5) + b(x+5))' = (a(x-5) + b(x+5))'$$

$$-a + 5a + 5b + 5b = 5a - 5a + 5b + 5b$$

$$10a + 10b = 10b$$

$$20a + 20b = 0$$

$$a + b = 0$$

$$f(x) = 2x^3 - 2x^2 - 6x^2 + 6x + 1$$

$$f(x) = 12x^3 - 6x^2 - 12x + 6$$

$$0 = 6(2x^3 - x^2 - 2x + 1)$$

$$= 6(x^2(2x-1) - (2x-1))$$

$$= (x^2-1)(2x-1)$$

$$= (x+1)(x-1)(2x-1)$$

$$x = -1, 1, \frac{1}{2}$$

$$x = -1 : y = 3 - 2 - 6 - 6 + 1 = -6$$

$$x = \frac{1}{2} : y = \frac{3}{16} - \frac{2}{16} - \frac{6}{16} - \frac{6}{16} + 1$$

$$= \frac{3}{16} - \frac{2}{16} - \frac{24}{16} + \frac{16}{16} = \frac{3}{16}$$

$$= \frac{3}{16}$$



$$f(1) = (3-1)(2-1) - (1-1)(1-1) + 1$$

$$= 2 - 0 + 1 = 3$$

$$x = 1 : y = 3 - 2 - 6 + 6 + 1 = 2$$

$$= 2$$

$$\int \frac{1}{x^2} dx = \int x^{-2} dx = \frac{x^{-1}}{-1} = -\frac{1}{x}$$

$$n(1) = \int \frac{1}{x^2} dx = -\frac{1}{x} = -1$$

$$L \frac{1}{x^2} = -\frac{1}{x}$$

$$\frac{5+3}{11} = \frac{8}{11}$$

$$\frac{3}{11}$$

$$x + 2y + 2z = 4 \quad \text{--- (1)}$$

$$2x - 2y - 2z = -3 \quad \text{--- (2)}$$

$$4x + y + 2z = 3 \quad \text{--- (3)}$$

$$\text{(1)} \times 2 : 2x + 4y + 4z = 8 \quad \text{--- (4)}$$

$$\text{(4)} - \text{(2)} : 6y + 6z = 11 \quad \text{--- (5)}$$

$$\text{(3)} - \text{(5)} : 10x + 3z = 3 - 11 = -8 \quad \text{--- (6)}$$

$$\text{(6)} - \text{(6)} : x = 0$$

$$\therefore \text{then } 2y + 2z = 1$$

$$y + z = \frac{1}{2}$$

$$\text{(1)} \times 3 : 3x + 6y + 6z = 12 \quad \text{--- (7)}$$

$$\text{(7)} - \text{(5)} : 3x - 2z = 1 \quad \text{--- (8)}$$

$$\text{(8)} \times 3 : 9x - 6z = 3 \quad \text{--- (9)}$$

$$x = \bar{x} = \frac{16.5}{5.5} = 3$$

$$= \frac{6+4}{2} = 7.5$$

$$y = \frac{5.5^2 - 6 + 19 + 1}{2} = \frac{30.25 - 6 + 20}{2} = \frac{44.25}{2} = 22.125$$

$$P(16.5 \leq k) = P(5.5 \leq 2k)$$

$$P(16.5 \leq k) = P(5.5 \leq 2k)$$

$$16.5 \leq k \quad 5.5 \geq 2k$$

$$6 \leq k = 14 \geq 2k$$

$$\frac{7}{13} + \frac{10}{14}$$

$$\frac{\frac{7}{31}}{\frac{7}{31} + 1} = \frac{7}{31} \cdot \frac{13}{20}$$

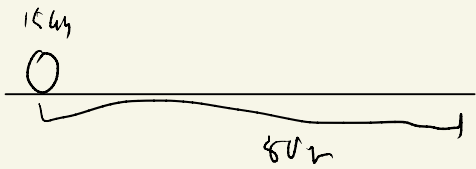
$$= \frac{91}{620} < \frac{13}{90}$$

$$= \frac{91}{620}$$

$$\frac{7}{13}$$

$$337 + (8) \uparrow$$

$$\Delta T = 31.24$$



$$3 - \sin(2t - 4)$$

$$\frac{8}{3} = \sin(2t - 4)$$

$$q_0 e^{-Rt/2L} \cos \left[\sqrt{\frac{1}{LC} - \left(\frac{R}{2L}\right)^2} t \right]$$

$$\frac{60}{24} = \frac{244}{244}$$

$$\# \phi = -65 \sin(2x - 4)$$

$$7.1950 \times 10^3 \rightarrow \frac{244}{25 \times 10^3} = \frac{4}{3} = \sin(2x - 4)$$

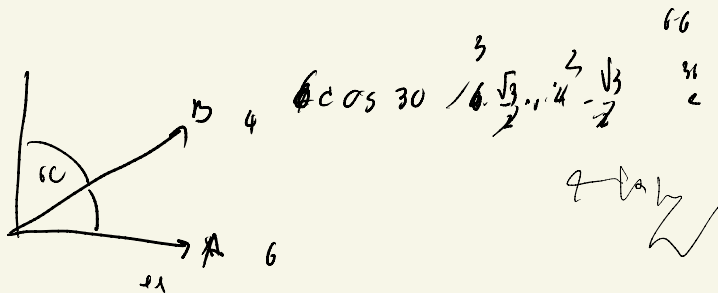
$$100 \cdot \frac{-9.31(5)}{10} \cos \left[\sqrt{\frac{1}{5 \cdot 10^{-4}} - \left(\frac{9.31}{2.5}\right)^2} 0.05 \right]$$

$$\phi = -6 \cos(2t - 4)$$

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

$$100 \cos \sqrt{\frac{40^2 (10^3 - x) (10^3 T x)}{2 \times 10^3}}$$

$$100 \cos \sqrt{20x}$$



$$2\sqrt{3} \cdot 6 = 12\sqrt{3}$$

$$\begin{array}{r} 153 \\ 14 \\ 179 \\ \hline 1570 \\ 2734 \end{array}$$