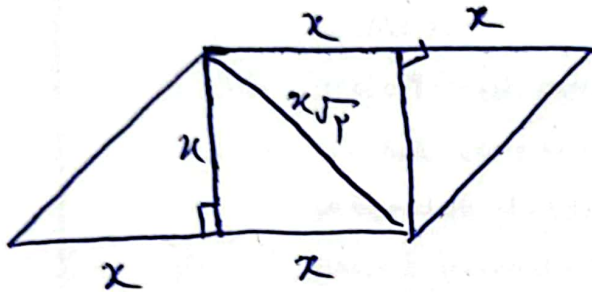


$$S_{\text{موازي الاضلاع}} = \text{قاعدة} \times \text{ارتفاع} = \cancel{2x} \times x = 2x^2$$

①



$$S_{\text{مربع}} = \frac{\text{ارتفاع} \times \text{قاعدة}}{2} = \frac{x \times x}{2} = \frac{x^2}{2}$$



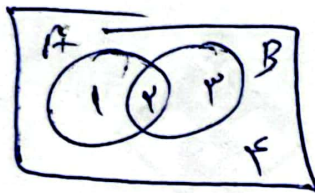
$$2x^2 = \frac{x^2}{2} + 3 \rightarrow 4x^2 = x^2 + 6$$

$$3x^2 = 6$$

$$x^2 = 2 \rightarrow x = \sqrt{2}$$

$$\text{قطر مربع} = x\sqrt{2} = \sqrt{2} \times \sqrt{2} = 2$$

✓✓



$$C = (A' - B) \cup (A' - B') = 3, 4$$

(2)

$$D = (B' - A) \cup (B' - A') = 1, 4$$

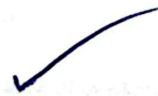
$$E = C \cup D = 1, 3, 4 \rightarrow E' = 2$$

$$\hookrightarrow A' \cup B' = 1, 3, 4$$

$$\hookrightarrow A' \cap B' = 4$$

$$\hookrightarrow A \cup B = 1, 2, 3$$

$$\hookrightarrow A \cap B = 2$$



③ تابع ثابت  $\rightarrow$  فرض می‌کنیم

$$P_m - 1 = K^2 - K = 2$$

$$\rightarrow P_m - 1 = 2 \rightarrow m = 1$$

$$\rightarrow K^2 - K = 2 \rightarrow K^2 - K - 2 = 0 \rightarrow K = +2, -1$$

$$P_{\text{vals}} = \{1, -1, 2\}$$

$$P_{\text{vals}} = -2$$

✓

$$f\left(\frac{1}{r}\right):$$

$$\left[\frac{1}{r}\right] = 0 \rightarrow \text{ضابطہ باقی}$$

(۴)

$$f\left(\frac{1}{r}\right) = \left|\frac{1}{r}\right| \operatorname{sign}\left(-\frac{1}{r}\right) = \frac{1}{r} \times (-1) = -\frac{1}{r}$$

$$f\left(-\frac{1}{r}\right):$$

$$\left[-\frac{1}{r}\right] = -1 \rightarrow \text{ضابطہ باقی}$$

$$f\left(-\frac{1}{r}\right) = 1 - \operatorname{sign}\left(\frac{1}{r}\right) = 1 - 1 = 0$$

$$\therefore \text{جواب} = -\frac{1}{r} + 1 = \frac{1}{r}$$

✓

$$f(1-r) = r \rightarrow +rm - h = r$$

$$g(-r) = r \rightarrow -ra + h = r$$

$$\rightarrow rm - h = -ra + h$$

$$\rightarrow rh = ra + rm$$

(1)

$$\rightarrow h = a + m$$

(2)

$$f(1-\frac{\delta}{r}) = \frac{\delta}{r}m - h$$

$$\rightarrow \frac{\delta}{r}m - h = -\delta a + h$$

$$\rightarrow rh = \delta a + \frac{\delta}{r}m$$

(2)

$$g(-\delta) = -\delta a + h$$

$$\textcircled{1}, \textcircled{2} \rightarrow ra + rm = \delta a + \frac{\delta}{r}m \rightarrow ra - \frac{\delta}{r}m \rightarrow a = \frac{\delta}{r}m$$

$\frac{m}{a} = r$

$$\boxed{\frac{m}{a} = r}$$

~~4~~  $\{\sqrt{2}, \sqrt{3}, \sqrt{5}\}$  : g of Sine waves (4)

$$\frac{f}{f_{xg}} = \left\{ (\sqrt{2}, \frac{-2}{-2x-1}), (\sqrt{3}, \frac{-3}{-3x-2}), (\sqrt{5}, \frac{1}{1x-4}) \right\}$$

$$\left\{ (\sqrt{2}, -1), (\sqrt{3}, \frac{1}{2}), (\sqrt{5}, -\frac{1}{4}) \right\}$$

✓✓



(۷) اگر ریشه‌های معادله  $\alpha$ ,  $\beta$  باشد،  $\sqrt{3}$ ، امضا حتمی است. آنگاه داریم:

$$(\sqrt{3})^2 = \alpha \cdot \beta \rightarrow \alpha \cdot \beta = 3 \rightarrow \text{ حاصل ضرب ریشه‌ها}$$

$$\rightarrow \frac{c}{a} = \frac{m^2 - 4}{m} = 3$$

$$\rightarrow m^2 - 4 = 3m \rightarrow m^2 - 3m - 4 = 0 \rightarrow m = 4, -1$$

$$m = -1 \rightarrow -x^2 - 4x - 3 = 0 \rightarrow x^2 + 4x + 3 = 0 \rightarrow x = 1, 3$$

$$m = 4 \rightarrow 4x^2 - 4x + 12 = 0 \rightarrow x^2 - x + 3 = 0 \quad \text{حساب ندارد}$$

۳

مجموع ریشه‌ها  $\boxed{1 + 3 = 4}$

ک = ک

افراد سهامی = n

$$\rightarrow \text{سه هر نفر} = \frac{k}{n}$$

بعد از ترک ۴ نفر

افراد = n - 4

$$\rightarrow \text{سه هر نفر} = \frac{k}{n-4}$$

نسبت از قبل به هر نفر

$$\frac{\frac{k}{n-4}}{\frac{k}{n}} = \frac{k}{n-4} = \frac{k}{n} + \frac{1}{3}$$

$$\rightarrow \frac{k}{n-4} - \frac{k}{n} = \frac{1}{3} \rightarrow \frac{n \cancel{k} - n \cancel{k} + 4k}{n(n-4)} = \frac{4k}{n(n-4)} = \frac{1}{3}$$

$$12 = n(n-4) \rightarrow n = 6$$

افراد اولیه

نصف ک را بین افراد اولیه تقسیم می کنیم

$$\rightarrow \frac{\frac{1}{2}}{6} = \frac{1}{12}$$

سه هر نفر

✓



$$2, 4, 6, 8 \rightarrow \bar{x} = 5$$

$$s^2 = \frac{(-3)^2 + (-1)^2 + (1)^2 + 3^2}{4} = 5$$

(9)

مرکزهای  
۸ عدد ۷ یکدانه

$$2, 4, 6, 7 \rightarrow \bar{x} = 4.75$$

$$s^2 = \frac{(-2.75)^2 + (-1.75)^2 + (-0.75)^2 + (0.75)^2}{4} < 5$$

هرگاه از داده‌ها با عدد قبلیان جایگزین شوند مجموع داده‌ها ۱۹ و میانگین ۴.۷۵ می‌شود.

۴

$$\alpha = \frac{f}{n} \times 100 = \frac{12}{12+13+12+12+12+12} \times 100$$

$$= \frac{12}{63} \times 100 = 19.04\%$$

10

11

$p >$

$q \cup$

(12)

$$\text{1) } \overbrace{(> \rightarrow \cup)}^{\cup} \wedge r \rightarrow \cup$$

$$\text{2) } \cancel{p} \rightarrow \overbrace{(> \wedge \cup)}^{\cup} \rightarrow \cup$$

$$\text{3) } \overbrace{(\cup \rightarrow (> \wedge \cup))}^> \wedge r \rightarrow r \quad \checkmark$$

$$\text{4) } \overbrace{(> \rightarrow \cup)}^{\cup} \wedge r \rightarrow \cup$$

3

(14)

$$\text{نہ سو در نہ فہر} \Rightarrow P(x) = 0$$

$$P_0(-x^2 - \delta f_0 x + 11x_{00}) = 0 \rightarrow x^2 + \delta f_0 x - 11x_{00} = 0$$

$$\downarrow) \quad f f_{0000} + \delta f_0 x 1_{00} - 11x_{00} \neq 0$$

$$\downarrow) \quad 14.2 + \delta f_0 x 14_0 - 11x_{00} = 0$$

✓

شماره واقعی فردا :

$$\frac{4 \times 4 \times 3}{1, 0, 1} = 48$$

(15)

شماره واقعی فردا مقرب  
5 :

$$\frac{4 \times 4 \times 1}{\text{مقرب 5}} = 16$$

شماره واقعی فردا که  
مقرب 5 باشد

$$= 48 - 16 = 32$$

32





$$a_p = \frac{1}{p+1} = \frac{1}{10}$$

$$b_p = \frac{p \times p + 1}{p+1} = \frac{9}{10}$$

(1V)

$$\frac{9}{10} - \frac{1}{10} = \frac{1V}{10} = 1V$$

✓✓

$$a_p + a_{21} = a_d + 41$$

قانون  
افسرها

$$a_p + a_{21} = a_d + a_{22}$$

$$\rightarrow a_d + a_{22} = a_d + 41$$

$$\rightarrow a_{22} = 41$$

پ

18

(19)

$$a_1 = 1 \text{ كذا}$$

$$r = \frac{1}{\mu}$$

$$a_n = a_1 r^{n-1} = 1 \text{ كذا} \left(\frac{1}{\mu}\right)^{n-1}$$

$$a_n = 2 \rightarrow 1 \text{ كذا} \left(\frac{1}{\mu}\right)^{n-1} = 2$$

$$\left(\frac{1}{\mu}\right)^{n-1} = \frac{2}{1 \text{ كذا}} = \frac{1}{\sqrt{19}} = \left(\frac{1}{\mu}\right)^2$$

$$n-1 = 2 \rightarrow n = 3$$

هو

هو

Y<sub>0</sub>

$$\frac{(rx)^d \times r_1^w}{1d^w \times d^r} = v^w$$

$$\frac{(rx)^d \times \cancel{w^w} \times \cancel{v^w}}{d^w \times \cancel{w^w} \times d^r} = \cancel{v^w}$$

$$\rightarrow \frac{(rx)^d}{d^d} = 1$$

$$\rightarrow rx = d \rightarrow x = \frac{d}{r} = r_1^d$$