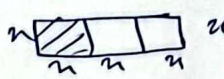


# دکتر سیوا امین / باسغ شریعی ریاضی انسانی / کنورسیر ۱۴۰۳

مساحت مستطیل نزدیک =  $\frac{\text{طول}}{n} \times \frac{\text{عرض}}{n} = \frac{2n}{n} \times \frac{2}{n} = \frac{4}{n}$   (۱) نیزه ۱

مساحت هر مربع =  $\frac{4}{n^2}$   $\rightarrow$  مساحت نزدیک  $= \left(\frac{4}{n^2}\right) \times n = \frac{4}{n}$

$2n^2 = \left(\frac{4}{n^2} \times n^2\right) + 14 \Rightarrow 2n^2 = 4 + 14 \Rightarrow 2n^2 = 18 \Rightarrow n^2 = 9 \Rightarrow n = 3$

$2n^2 = 18 \Rightarrow n = 3$   $\rightarrow$  طول مستطیل نزدیک =  $2n = 6$  عرض =  $2$

(A-B) - (C-B) = (A-B) - C (۲) نیزه ۲

$P(n) = (an^2 - (an^2 - abn + n - b)) C = (an^2 - an^2 + abn - n + b) C = (abn - n + b) C$  (۳) نیزه ۳

$= (a-b) Cn^2 + (ab-1) Cn + bC$

$(a-b) C = 0 \rightarrow a = b$   
 $(ab-1) C = 0 \rightarrow b = \frac{1}{a}$

$\rightarrow \frac{1}{a} C = \frac{1}{a} C + \frac{1}{a} C - C$   
 $\rightarrow aC = C^2 - a$   
 $(C^2 - aC - a) = 0 \rightarrow (C-1)(C+a) = 0$   
 $C=1$   
 $C=-a$

$n(n) = -1, \sqrt{1} \rightarrow -1, 1$  (۴) نیزه ۴

$f(n) = [1 + \frac{1}{n}] \xrightarrow{n=1, \sqrt{1}} f(-1, 1) = [1 + \frac{1}{-1, 1}] = [-1, 2] = -1$

$f(n) = [1 - \frac{1}{n}] \xrightarrow{n=\sqrt{1}} f(\sqrt{1}) = [1 - \frac{1}{\sqrt{1}}] = [1 - 1, \sqrt{1}] = [0, 1] = 0$

$\sqrt{1} = \sqrt{1, 1} \approx 1, 1 \rightarrow f(\sqrt{1}) + f(-1, 1) = -1 - 0 = -1$

$AB \cdot \frac{p}{q} = BC \cdot \frac{p}{q} \Rightarrow \frac{y_B - y_A}{x_B - x_A} = \frac{y_C - y_B}{x_C - x_B}$  (۵) نیزه ۵

$\frac{a - 3q}{-1 - 1} = \frac{3 - q}{a - (-1)} \rightarrow \frac{-3q}{-2} = \frac{3 - q}{a + 1} \rightarrow a = \frac{3 - q}{\frac{-3q}{-2}} \rightarrow a^2 + a = \frac{3 - q}{-3q}$

$a^2 - 2a - 3 = 0 \rightarrow (a+1)(a-3) = 0$   
 $\begin{cases} a = -1 \times \\ a = 3 \checkmark \end{cases}$

(۲۰۰۰) ۹

$$F = \left\{ (v, \frac{1}{r}), (\frac{-\delta}{r}, -v), (d, r) \right\} \quad G = \left\{ (a, -r), (\frac{-\delta}{r}, \frac{r}{r}), (f, -a) \right\}$$

$$A = \int_{-\infty}^{\infty} \frac{1}{r}, \quad x^3 \text{ s.d. } \frac{x}{r}$$

$$a = \frac{-2}{3}$$

1.2.2 (1)

$$n = \sqrt[4]{2}$$

(۴) سوئد

$$\vec{n} \times \vec{Q} = \frac{qn}{c} \quad a \text{ or } d = 9n$$

(۱۷)  $\frac{1}{x^2}$

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$$b - a = r \rightarrow b = r + a$$

$$Q_n = \frac{W_E + W_D}{t} = W_{E,D}$$

۱۲) نتیجه ۲

$$\neg p \equiv f \quad q \equiv f \leftarrow \neg q \equiv T \quad p \equiv T$$

بررسی نتیجه:

$$1) (F \Rightarrow r) \Rightarrow T \equiv T \Rightarrow T \equiv T$$

$$2) (T \Rightarrow r) \Rightarrow f \equiv r \Rightarrow f \equiv \neg r$$

$$3) (r \Rightarrow T) \Rightarrow f \equiv T \Rightarrow f \equiv f$$

$$4) (r \Rightarrow T) \Rightarrow f \equiv T \Rightarrow f \equiv f$$

$$13) \text{ نتیجه ۲} \quad \frac{8}{-2} = -\frac{18000}{2} = -9000 \rightarrow N = -9000 - P + 18000$$

$$P = \frac{N - 18000}{-9000}$$

$$\text{درآمد} \quad R(N) = P \times N = \frac{N - 18000}{-9000} \times N = -\frac{1}{9000} N^2 + \frac{2}{9000} N$$

$$\text{تاج دانه} \quad C(N) = 20N + 18000$$

$$\text{سود} \quad P(N) = -\frac{1}{9000} N^2 + \frac{2}{9000} N - 20N - 18000 = -\frac{1}{9000} N^2 + 18N - 18000$$

$$\text{نقطه اوج برای} \quad N = \frac{-b}{2a} = \frac{-18}{2 \times -\frac{1}{9000}} = 81000 \rightarrow P = \frac{18000 - 18000}{-9000} = 0$$

$$14) \text{ نتیجه ۲} \quad \frac{140}{2} = 70 \rightarrow \text{نقطه اوج} = 70$$

$$1a) \quad 24 = 24 \quad \text{نتیجه ۳}$$

$$n(s) = \binom{9}{n} \times \binom{10}{n} = P_0$$

$$14) \text{ نتیجه ۲}$$

$$n(A) = 8 \quad P(A) = \frac{8}{20} = \frac{1}{2.5}$$

$$a_1 = \frac{1}{\sqrt{2}}$$

مميز (19 د/و)

$$h=1 \rightarrow a_2 = \frac{1}{1+\sqrt{2}a_1} = \frac{1}{1+\frac{\sqrt{2}}{2}} = \frac{2}{2+\sqrt{2}}$$

$$h=2 \rightarrow a_3 = \frac{1}{1+\sqrt{2}a_2} = \frac{1}{1+\frac{\sqrt{2}}{2}} = \frac{2}{2+\sqrt{2}}$$

$$\frac{a_2}{a_3} = \frac{\frac{2}{2+\sqrt{2}}}{\frac{2}{2+\sqrt{2}}} = \frac{1}{1} = 1 < \frac{\sqrt{2}}{1.0} = \sqrt{2}$$

1, 12, 18

مميز (19 د/و)

$$S_{12} = \frac{12}{2} [P(1) + 11(8)] = 6 [19 + 88] = 642$$

8, 11, 1

$$S_n = 11 \rightarrow \frac{n}{2} (P(1) + (n-1)(8)) = 110$$

$$\frac{n}{2} (P(1) + 8(n-1)) = 110 \rightarrow n(n+1) = 220$$

$$n(n+1) = 220 \rightarrow n = 14$$

$$a_n = \sqrt{2}$$

$$r^{n-1} = \frac{a_n}{a_1} = \frac{\sqrt{2}}{\frac{1}{\sqrt{2}}} = 2 \quad r \leq \sqrt{2} \quad \text{مميز (19 د/و)}$$

$$a_n = 8a$$

$$a_n = \sqrt{2} \rightarrow a_1 r^{n-1} \leq \sqrt{2} \rightarrow a_1 \leq \frac{\sqrt{2}}{r^{n-1}} = \sqrt{2}$$

$$r^{n-1} = \sqrt{2} \rightarrow a_1 \leq \frac{\sqrt{2}}{\sqrt{2}} = 1$$

$$a_{11} = a_1 r^{10} \rightarrow a_1 = \sqrt{2}, r^{10} = \sqrt{2}$$

$$a_{11} = a_1 (r^{10}) = \sqrt{2} \times \sqrt{2} = 2 = 8a = 8\sqrt{2}$$

$$\frac{a^n \times (a \times r)^n}{r^n \times \frac{a^n}{a^n}} = a^{2n}$$

$$\frac{a^n \times a^n \times a^n}{a^n} = a^{2n} \quad \text{مميز (19 د/و)}$$

$$f(n) = \frac{1}{a} a^n = a^{n-1} \rightarrow a^n = a \times a^{n-1} = a \times f(n) = a \times \frac{1}{a} a^{n-1} = a^{n-1} = f(n)$$