

نوین کنکور

کنکور

امتحان نهایی

**نوین کنکور
شرط لازم و کافی
برای موفقیت**

novinkonkor.com

$$\frac{2^{\frac{5}{4}}}{2^{\frac{3}{4}} \times (2^{\frac{1}{4}})^{-\frac{3}{4}}} = \frac{2^{\frac{5}{4}}}{2^{\frac{1}{4}} \times 2^{-\frac{3}{4}}} = 2^{\frac{5}{4}} \times 2^{\frac{3}{4}} = 2^{\frac{8}{4}} = 2^2 = 4$$

۱۱۱
سه نزدیک ۴

$$\bar{x} = \frac{111 + 343}{2} = 242$$

میانگین
قرار داده شده است
میانگین پایه ریاضی

۱۱۲
سه نزدیک ۳

$$a, aq, aq^2, aq^3, aq^4$$

$$aq^2 = \sqrt{aq^3}$$

$$aq = 1 \Rightarrow q = 3 \Rightarrow a = \frac{1}{3}$$

$$\frac{1}{2} - \frac{1}{3} = \frac{1}{4}$$

۱۱۳
سه نزدیک ۴

$$\sqrt{x+a} - \sqrt{x-2} = 2$$

$$\sqrt{x+a} + \sqrt{x-2} - 2 = ? \Rightarrow \sqrt{x+a} + \sqrt{x-2} = ? + 2$$

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$$x+a - (x-2) = 2(?+2)$$

$$x+a - x + 2 = 2? + 4 \Rightarrow ? = \frac{a}{2}$$

سه نزدیک ۴

$$2x^2 + \frac{3}{4}x + C < 1$$

$$2x^2 + \frac{3}{4}x + C - 1 < 0 \rightarrow \left(0, \frac{1}{4}\right)$$

$$2\left(\frac{1}{4}\right)^2 + \frac{3}{4}\left(\frac{1}{4}\right) + C - 1 = 0$$

$$\Rightarrow C = -\frac{1}{4}$$

سه نزدیک ۳

$$(0, r) \Rightarrow 1 - \log_c b = r \Rightarrow \frac{1}{c} = -b \Rightarrow \underline{\underline{bc = -1}}$$

$$(-1, 0, 0) \Rightarrow -\frac{r}{r}a + r = \frac{1}{r}$$

$$\Rightarrow a = -1$$

$$(a+c)b = -r$$

$$\underline{\underline{b+c = -\frac{r}{r}}} \Rightarrow x^r + \frac{r}{r}x - 1 = 0$$

Diagram showing a circle with points labeled $-r$ and $\frac{1}{r}$ on the x-axis, and b and c on the y-axis.

114

$$\left(-\frac{1}{\lambda}, -\frac{r}{a}\right) \in f^{-1} \Rightarrow \left(-\frac{r}{a}, -\frac{1}{\lambda}\right) \in f \Rightarrow -\frac{1}{\lambda} = \frac{-\frac{r}{a}}{a + a(-\frac{r}{a})}$$

$$\frac{1}{\lambda} = \frac{+\frac{r}{a}}{\frac{a}{a}a} \Rightarrow \underline{\underline{a = r}}$$

115

$$\frac{|\sin \alpha|}{\cos \alpha} = -\frac{1}{\frac{\cos}{\sin}} \Rightarrow |\sin \alpha| = -\sin \alpha$$

$$\frac{\sin \alpha}{\cos \alpha} = -1$$

$$\frac{\sin \alpha}{\cos \alpha} = -1$$

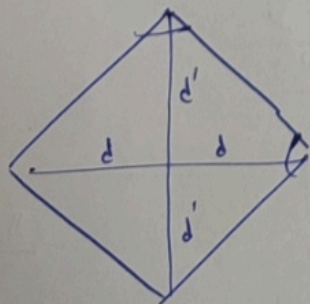
$$\frac{1}{|\cos \alpha|} - \frac{\sin}{\cos} = \frac{1 + \sin \alpha}{|\cos \alpha|}$$

$$\frac{1}{|\cos \alpha|} - \frac{\sin \alpha}{\cos \alpha} = \frac{1}{|\cos \alpha|} + \frac{\sin}{|\cos \alpha|}$$

$$|\cos \alpha| = -\cos \alpha$$

$$\frac{\sin \alpha}{\cos \alpha} = -1$$

116



$$f d d' = d^r + d'^r$$

$$\left(\frac{d'}{d}\right)^r - f\left(\frac{d'}{d}\right) + 1 = 0$$

$$d' > d \quad \frac{d'}{d} = \frac{\sum r + r \sqrt{r}}{r} = r \sqrt{r} = r + \sqrt{r} = \tan \alpha$$

$$\frac{A - B}{r} = \beta - \alpha = \frac{\pi}{c} - r \alpha$$

$$\tan r \alpha = \frac{r \tan \alpha}{1 - \tan^2 \alpha} = \frac{1}{\sqrt{r}}$$

$$\frac{r}{\sqrt{r}} = \sqrt{r}$$

117

$$\cos^2 x + 1 = r \sin x$$

$$\frac{r \cos^2 x}{(1 - \sin^2 x)} = r \sin x$$

$$\sin x = \frac{1}{r}$$

$$\frac{\pi}{4} \rightarrow \frac{\pi}{4} = \frac{\pi}{r}$$

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

118

$$\frac{r\pi}{r} = \frac{a}{r} \Rightarrow a = \frac{1}{r} \quad T = \frac{r\pi}{\frac{1}{r}} = r\pi \quad \text{نیزه}$$

۱۲۱

$$\frac{1}{\frac{2}{\pi}} + \frac{1}{-1} = \frac{\Sigma}{\pi} - 1 \quad f(x) \begin{cases} -\frac{a}{\pi} x & x_1 \\ \frac{r}{\pi} x & x_2 \end{cases}$$

نیزه

۱۲۲

$$\frac{f(x)}{0^+} = -\infty \quad \left[\frac{r\pi}{\pi} \right] - r = r - r = -1 \quad \text{نیزه}$$

۱۲۳

$$f(x) = (a+b)[x] + b \xrightarrow{a+b=0} a+b=0 \Rightarrow f(x) = b \quad \text{نیزه}$$

$$a = -b \quad \frac{f(a)}{a} = \frac{b}{a} = \frac{-a}{a} = -1$$

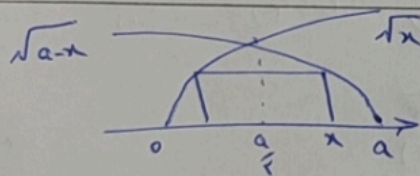
۱۲۴

$$f'(x) = \frac{a}{r\sqrt{a-x}} = \frac{1}{r} \quad \text{نیزه}$$

$$9a^2 - 4a - 2 = 0 \quad b' = -1 \quad \Delta' = 100 \quad x_{1,2} = \frac{1 \pm 10}{9}$$

$$(r, r) \quad (-1, 1) \quad \sqrt{a-x} = \frac{x+2}{r} \Rightarrow a = \frac{r}{2}(x+2) \quad f(0) = r \quad \text{نیزه}$$

۱۲۵



$$S = r(x - \frac{a}{2})\sqrt{a-x} = r(x - \frac{a}{2})(a-x)^{1/2}$$

$$a\sqrt{a} = r\sqrt{a} \quad a = r$$

نیزه

۱۲۶

$$a \quad 2a \quad r$$

$$\bar{x} = a+1 \quad \bar{y} = \frac{(1)^2 + (a-1)^2 + (r-a)^2}{3} = 12 \Rightarrow$$

$$b = \sqrt{12} \Rightarrow$$

$$2a^2 - 9a - 24 = 0 \quad \frac{a}{r} = 2$$

$$a^2 - 3a - 12 = 0$$

$$a = 4 \quad a = -3 \quad \text{نیزه}$$

۱۲۷

$$\begin{pmatrix} 9 \\ f \end{pmatrix} \times \omega = 43$$

نیزه

۱۲۸

$$1 - \frac{4}{r^4} = \frac{r}{r^4} = \frac{1}{r} \quad \text{نیزه}$$

۱۲۹

$$P(A) = .4$$

$$P(B) = .1$$

$$.4 + .1 - \underbrace{.2 \times .1}_{.02} = .48$$

1 مرتبه

130

$$d = \frac{F}{\sqrt{a}}$$

$$S = \frac{\frac{1}{2} \times \frac{1}{\sqrt{a}} \times \frac{1}{\sqrt{a}}}{2} = \frac{1}{4}$$

2 مرتبه

131

$$OA = \sqrt{2a + 1}$$

$$OH = \frac{2a + 1}{2}$$

$$S_{ABC} = 3 S_{BMN}$$

$$\frac{BM}{AM} = \frac{a}{2} = 1.5$$

3 مرتبه

132

$$\frac{1}{2} \times a \times AB \sin \alpha = 2 \times \frac{1}{2} \times 2 \times BM \sin \alpha$$

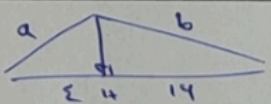
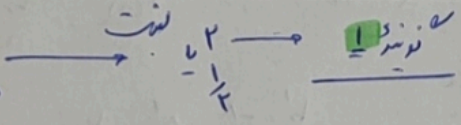
$$aAB = 4BM$$

$$a^2 = 2 \times 2$$

$$a = 2$$

$$b^2 = 14 \times 2$$

$$b = \sqrt{28}$$



133

$$\sqrt{\frac{34}{2a} + \frac{42}{2a}} = 2$$

2 مرتبه

134

بصورت

$$\frac{2}{\sqrt{a}} = \frac{a/4}{\frac{1 + \sqrt{a+1}}{2}}$$

$$a\sqrt{a} - 2 = 2\sqrt{a+1} \rightarrow a\sqrt{a} - 2 = 2\sqrt{a+1}$$

$$4\sqrt{a} \rightarrow 1$$

135

$$1 - 2n^2 = -2n \Rightarrow 2n^2 - 2n - 1 = 0$$

$$1 \times \rightarrow (1, -1) (1, 2)$$

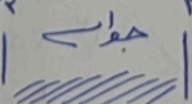
$$-\frac{1}{2} \sqrt{}$$

$$(2, -\frac{1}{2}) \Rightarrow 1$$

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$$\frac{f'(x)}{x - f(x)} < 0$$

$$-\frac{13}{2}$$



$$(-4, 2), (-2, 2)$$

$$-4, -2, -2, -3$$

3 مرتبه

137

$$2ax^2 - 2x + 1a = x$$

$$ax^2 - 2x + 9a = 0$$

$$9 - 36a^2 = 0 \Rightarrow a = \pm \frac{1}{2}$$

$$2ax^2 - 4x + 1a = 0$$

$$\Delta = 0$$

$$+ \frac{1}{2} \Rightarrow x = 2x \Rightarrow a = -\frac{1}{2}$$

2 مرتبه

138

$$2ax^2 - a - 4 = 0$$

$$p = -\frac{4}{2} = -2$$

1 مرتبه

139

$$x_s = -\frac{1}{2a}$$

$$y_s = 2a - \frac{1}{2a} = -\frac{1}{2} \Rightarrow 18a^2 + 2a - 1 = 0$$

$$a = -\frac{1}{2} \checkmark$$

4 مرتبه

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