

۲۰. آفلاین خوب تره

$$a - 2 = 0 \rightarrow a = 2$$

$$2x + b = 0$$

$$4 + b = 0$$

$$b = -4$$

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$$\Delta < 0 \rightarrow 4 - 4(1 - m^2) < 0$$

$$4 - 4 + 4m^2 < 0$$

$$4m^2 - 4 < 0$$

$$m^2 - 1 < 0 \rightarrow m^2 < 1$$

$$-1 < m < 1$$

محداف

جواب

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$$[n] + [-n] + 1 \neq 0$$

$$[n] + [-n] \neq -1$$

$$n \in \mathbb{Z}$$

$$x - x^2 \geq 0$$

$$x^2 \leq x \rightarrow -2 \leq x \leq 2$$

$$I \cap II = [-2, 2]$$

محداف

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الف) $x^3 + 3x^2 \geq 0$

ب) $(x+1)(x-1)x(x-3)$

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

$\Delta < 0$

$x^2(x+3) \geq 0$

$\frac{-2 \pm \sqrt{4}}{-2} = 0$

$\frac{-1 \pm \sqrt{1}}{-1} = 0$

$[3, +\infty) \cup (-\infty, -1] \cup \{0\}$

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الف) $|x-2|-3 \geq 0 \rightarrow |x-2| \geq 3$

$x-2 \geq 3$

$x \geq 5$

$x-2 \leq -3$

$x \leq -1$

$(-\infty, -1] \cup [5, +\infty) = P_f$

ب) $x - |x-2| \geq 0 \rightarrow |x-2| \leq x$

$x-2 \leq x$

$-2 \leq 0$

$x-2 \geq -x$

$x \geq 1$

$1 \leq x$

$[-1, 9]$

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الف) $1 - n|n| \geq 0 \quad n|n| \leq 1$

$\frac{1}{\sqrt{\alpha}} \quad (-\infty, 1]$

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ب) $3 - |n - 5| \geq 0 \quad |n - 5| \leq 3 \quad -3 \leq n - 5 \leq 3 \quad 2 \leq n \leq 8 \quad \text{I} \quad [2, 8] - \{5\}$

$3 - |n - 5| \neq 1 \quad |n - 5| \neq 2 \quad n - 5 \neq 2 \quad n - 5 \neq -2 \quad n \neq 7 \quad n \neq 3$

الف) $\cos n \neq 0 \rightarrow R - \{k\pi, \frac{\pi}{2}\}$

ب) $2\cos n - 1 \neq 0 \rightarrow 2\cos n \neq 1 \rightarrow \cos n \neq \frac{1}{2} \rightarrow R - \{2k\pi + \frac{\pi}{3}, 2k\pi - \frac{\pi}{3}\}$

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الف) $|2n+1| - |n+3| \neq 0 \rightarrow |2n+1| \neq |n+3|$ جواب $(-\infty, -\frac{2}{3}] \cup [2, +\infty)$

$(2n+1)^2 \neq (n+3)^2 \rightarrow 4n^2 + 4n + 1 \neq n^2 + 6n + 9 \rightarrow R - \{2, -\frac{2}{3}\}$

ب) $|2n+1| - |n+3| \geq -\frac{2}{3}$
 $|2n+1| \geq |n+3| - \frac{2}{3}$
 $4n^2 + 4n + 1 \geq n^2 + 6n + 9 - \frac{4}{9}$
 $3n^2 - 2n - 8 \geq -\frac{4}{9}$
 $3n^2 - 2n - 8 \geq -\frac{4}{9}$

$3n^2 - 2n - 8 \geq -\frac{4}{9}$

$3n^2 - 2n - 8 \geq -\frac{4}{9}$
 $(3n+4)(n-2) \geq -\frac{4}{9}$
 $(3n+4)(n-2) \geq -\frac{4}{9}$

$2n-1 > 0$

$2n-1 > 1 \rightarrow n > 1 \quad \text{I}$

$2n-1 > 1 \rightarrow n > 1$

$\log_{\omega}(2n-1) > \log_{\omega}(1)$

$\log_{\omega}(2n-1) > 0$

$\log_{\omega}(2n-1) < 1$

$2n-1 < \omega$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{II}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{III}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{IV}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{V}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{VI}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{VII}$

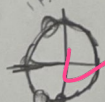
$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{VIII}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{IX}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{X}$

$2n-1 < 4 \rightarrow n \leq 2.5 \quad \text{XI}$

الف) $\log(2\cos n + 1) \quad 2\cos n + 1 > 0 \rightarrow 2\cos n > -1 \rightarrow \cos n > -\frac{1}{2}$



$P_f = (2k\pi - \frac{\pi}{3}, 2k\pi + \frac{2\pi}{3})$

الف

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ب) $\log \frac{n-1}{n+1} \geq 0 \quad \frac{n-1}{n+1} \geq 1 \quad \frac{n-1-n-1}{n+1} = \frac{-2}{n+1} \geq 0 \quad \text{INT} \quad P_f = (-\infty, -1)$

$\frac{n-1}{n+1} > 0$

$\frac{n-1}{n+1} > 0$

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