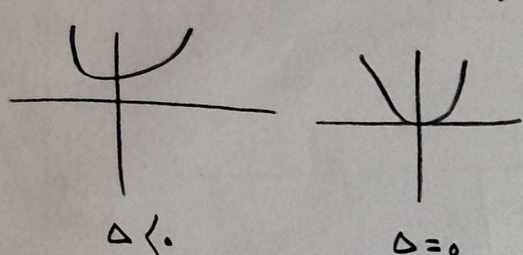
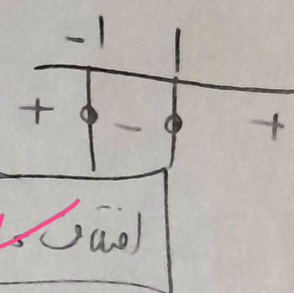
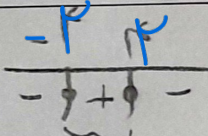


$$a - 2 = 0 \Rightarrow a = 2 \quad f(x) = \sqrt{2x + b}$$

$$x = 3 \rightarrow y = 0 \Rightarrow 2(3) + b = 0 \Rightarrow b = -6$$

$$\Delta \ll 0 \Rightarrow 4 - (4 \times (2 - m^2)) = 4m^2 - 4 \ll 0$$


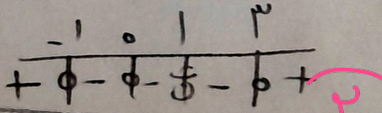
$$1, -1 \Rightarrow$$


$$x^2 - 1 \geq 0 \Rightarrow (x-1)(x+1) \geq 0$$


نقطه انتگرال مع = ۰، -۱، ۱، ۰

نتیجه: $x \in \mathbb{Z} \Rightarrow [x] + [x] = 2x$

دقت کن!

$$\frac{(x+1)(x-1)(x^2)(x-3)}{(x-1)(x^2+x+1)} \geq 0$$


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

$$x - |x - 2| \geq 0$$

$$\begin{aligned} x < 0, x - 2 + x \geq 0 &\rightarrow x \geq -1 \\ x \geq 0, x + 2 - x \geq 0 &\rightarrow x \leq 2 \end{aligned}$$

$$D = [-1, 2]$$

$$|x - 2| - 3 \geq 0$$

$$\begin{aligned} x < 0, 2 - x - 3 \geq 0 &\rightarrow -1 \geq x \\ x \geq 0, x - 2 - 3 \geq 0 &\rightarrow x \geq 5 \end{aligned}$$

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

$|n-5| = 2 \Rightarrow n-5=2 \rightarrow n=7$
 $|n-5| = 2 \Rightarrow n-5=-2 \rightarrow n=3$

$|x-5| \geq 0, \neq 1$
 $|x-5| \geq 1 \Rightarrow x-5 \geq 1 \rightarrow x \geq 6$
 $|x-5| \geq 1 \Rightarrow x-5 \leq -1 \rightarrow x \leq 4$
 $x-|x-5| \neq 1 \vee 10-x \neq 1 \rightarrow x \neq 9$
 $D = (0, 1] - \{9\}$

$|1-x| \geq 0 \vee |x| \geq 0$
 $D = (-\infty, 1]$

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$\cos x - 1 \neq 0 \Rightarrow \cos x \neq 1$
 $x \neq 2k\pi$
 $D = \mathbb{R} - \{2k\pi\}$

$\cos x \neq 0$
 $D = \mathbb{R} - \{k\pi + \frac{\pi}{2}\}$

1/105

$|2x+1| - |x+3| \geq 0$
 $|2x+1| \geq |x+3|$
 $4x^2 - 2x - 8 \geq 0 \Rightarrow x^2 - 2x - 4 \geq 0$
 $x \geq 3$
 $D = \mathbb{R} - (-\frac{2}{3}, 2)$

$|2x+1| - |x+3| \neq 0$
 $|2x+1| = |x+3|$
 $2x+1 = x+3 \vee 2x+1 = -(x+3)$
 $x = 2 \vee x = -\frac{4}{3}$
 $D = \mathbb{R} - \{2, -\frac{4}{3}\}$

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$2x-1 > 0 \Rightarrow x > \frac{1}{2}$
 $\log_2(x-1) > 0 \Rightarrow x-1 > 1 \Rightarrow x > 2$
 $x \geq 3$
 $D = \mathbb{R} - (-1, 3)$

$\log_2(x-1) > 0 \Rightarrow x-1 > 1 \Rightarrow x > 2$
 $\log_2(x-1) \geq 1 \Rightarrow x-1 \geq 2 \Rightarrow x \geq 3$
 $D = \mathbb{R} - (-1, 3)$

1/103

$\frac{x-1}{x+1} > 0 \Rightarrow \frac{-1}{+1} > 0$
 $\log_2 \frac{x-1}{x+1} > 0 \Rightarrow \frac{x-1}{x+1} \geq 1$
 $\frac{x-1-x-1}{x+1} > 0 \Rightarrow \frac{-2}{x+1} > 0 \Rightarrow x < -1$

$\cos x + 1 > 0$
 $\cos x > -1$
 $D = \mathbb{R} - [2k\pi + \frac{3\pi}{2}, 2k\pi + \frac{5\pi}{2}]$

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$D_f = (-\infty, -1)$

۳) عبارت مفرج باید صاف باشد!

$$x \in \mathbb{Z} = \overset{0}{[x]} + \overset{-1}{[-x]} + 1 = 1 \quad \checkmark$$

$$x \notin \mathbb{Z} = \overset{-1}{[x]} + \overset{-1}{[-x]} + 1 = 0 \quad \times$$

$[x] + [-x] + 1$ → $x \in \mathbb{Z}$

عبرت زیر را سیکال ناخته است!

$$4 - x^2 \geq 0 \rightarrow x^2 \leq 4 \rightarrow -2 \leq x \leq 2$$

$$\hookrightarrow D_f = \{-2, -1, 0, 1, 2\}$$

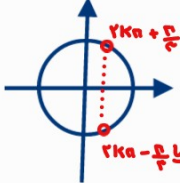
دامنه شامل ۵ عدد صحیح است!

۴-ب) $3 - |n-5| \geq 0 \rightarrow |n-5| \leq 3 \rightarrow -3 \leq n-5 \leq 3 \rightarrow 2 \leq n \leq 8$

$$\sqrt{3 - |n-5|} - 1 \neq 0 \rightarrow \sqrt{3 - |n-5|} \neq 1 \rightarrow 3 - |n-5| \neq 2 \rightarrow |n-5| \neq 2 \rightarrow n \neq 3, 7$$

$$D_f = [2, 8] - \{3, 7\} = [2, 3) \cup (3, 7) \cup (7, 8]$$

۷-ب) $y = \frac{C \cdot \sin}{2C \cdot \sin - 1} \rightarrow 2C \cdot \sin - 1 \neq 0 \rightarrow C \sin \neq \frac{1}{2}$



$$D_f = \mathbb{R} - \left\{ 2k\pi \pm \frac{\pi}{6} \right\}$$

۹) $\log_{1/5} \log_a^{2n-1} \rightarrow 2n-1 > 0 \rightarrow n > \frac{1}{2}$

$\log_a^{2n-1} > 0 \rightarrow 2n-1 > 0 \rightarrow 2n-1 > 1 \rightarrow n > 1$

$\log_{1/5} \log_a^{2n-1} \geq 0$ منابعی در آن
حیث عوض
میشود! $\rightarrow \log_a^{2n-1} \leq (1/5) \rightarrow \log_a^{2n-1} \leq 1 \rightarrow 2n-1 \leq 5 \rightarrow 2n \leq 6 \rightarrow n \leq 3$

$\hookrightarrow D_f = (1, 3]$