

$$n \geq 1 \quad (n-1)! = 1 \Rightarrow n! - (n+1)! = 1 \Rightarrow n! - n! = 0 \Rightarrow n = 1$$

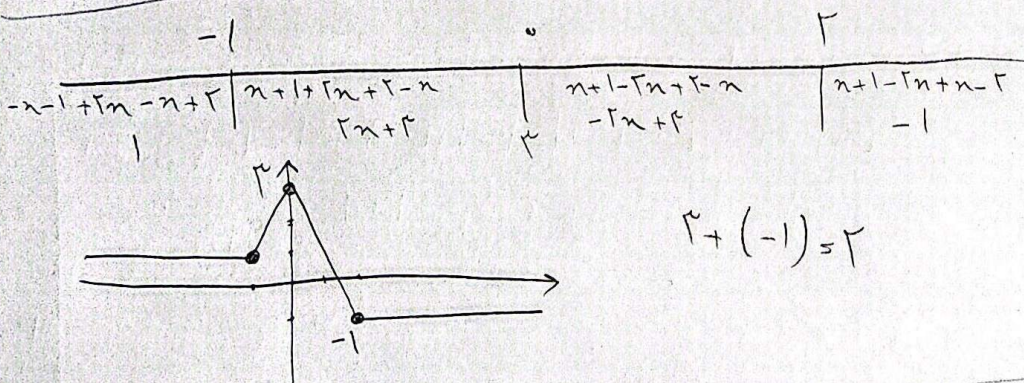
$$n \leq 1 \quad -(n-1)! = 1 \Rightarrow (n-1)! = -1 \Rightarrow n! - (n+1)! = -1 \Rightarrow n! - n! = 0 \rightarrow \text{جواب ناپسند}$$

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$$n \geq 1 \quad n! < n+1 \Rightarrow n! - n - 1 < 0 \Rightarrow (n-2)/(n+2) < 0 \Rightarrow \frac{-2}{+} \frac{2}{-} \Rightarrow n \in (-2, 2)$$

$$\Rightarrow -2 < n < 2 \Rightarrow -2/5 < n - \frac{1}{5} < 2/5 \Rightarrow |n - \frac{1}{5}| < 2/5 \Rightarrow \boxed{\alpha = \frac{1}{5}}$$

$$n \leq 1 \quad n! < -n-1 \Rightarrow \underbrace{n! + n + 1}_{\text{مجموعه مثبت}} < 0 \Rightarrow \text{غیر ممکن}$$

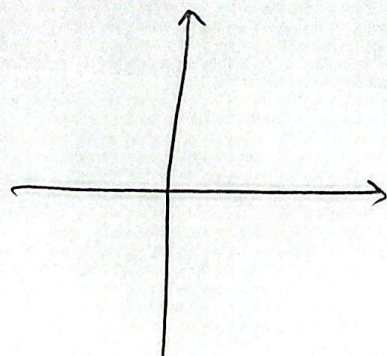
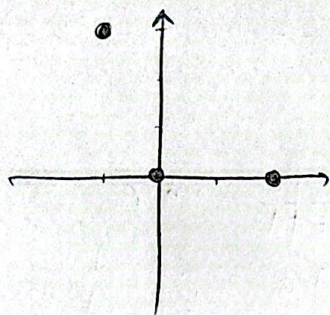
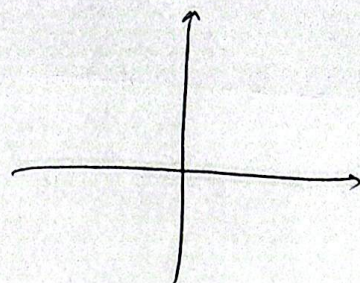
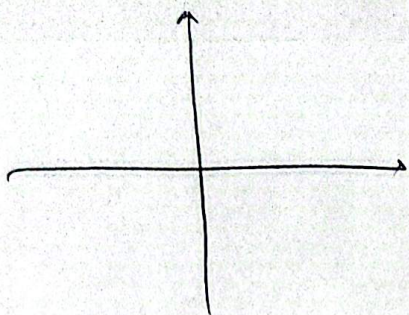
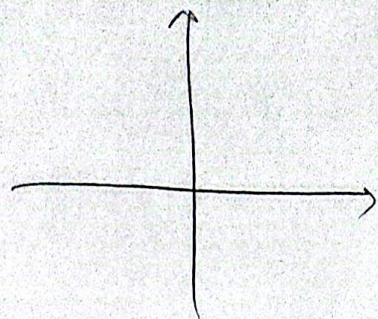
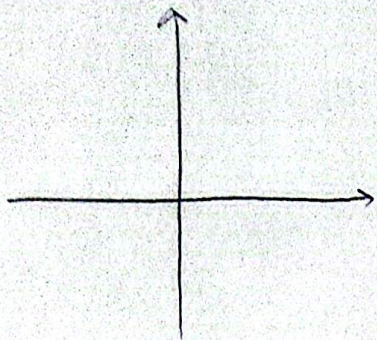


$$y = \left| \frac{1}{5}n \right| - 2 \xrightarrow{\text{مقدار مثبت}} \left| \frac{1}{5}n + 5 \right| - 1 \quad \left| \frac{1}{5}n \right| - 2 = \left| \frac{1}{5}n + 5 \right| - 1$$

$$\Rightarrow \left| \frac{1}{5}n \right| = \left| \frac{1}{5}n + 5 \right| + 1 \Rightarrow \frac{1}{5}n! = \frac{1}{5}n! + 5n + 14 + 1 + 2 \left| \frac{1}{5}n + 5 \right| \Rightarrow -(5n+14) = 2 \left| \frac{1}{5}n + 5 \right|$$

$$\Rightarrow 14n! + 124n + 214 = n! - 14n + 44 \Rightarrow 15n! + 138n + 170 \quad n = \frac{-138 \pm \sqrt{138^2 - 4(15)(170)}}{2 \cdot 15}$$

$$= \frac{-138 \pm \sqrt{9444}}{30} = \frac{-138 \pm 97.17}{30} = \begin{cases} \frac{-138 + 97.17}{30} = \frac{-40.83}{30} \\ \frac{-138 - 97.17}{30} = \frac{-235.17}{30} \end{cases}$$



$$\begin{aligned} b - [a] &, r/c \Rightarrow b - [a] + r/c \Rightarrow [b] = [a] + r/c \Rightarrow [a] + [r/c] \Rightarrow [a] + r \\ \Rightarrow a + [b] &, a + [a] + r/c \Rightarrow a + [a] + r/c \Rightarrow [a + [a]] = [a] + [a] \text{ and } r/c \Rightarrow [a] + [r/c] \Rightarrow r \\ \Rightarrow [a] &, 1 \quad b - [a] = b - 1 = r/c \Rightarrow \boxed{b, r/c} \Rightarrow [b], r/c \Rightarrow a + [b] = a + r/c \Rightarrow \boxed{a, 1/r} \end{aligned}$$

$$\Rightarrow [a]_s \quad b - [a] = b - 1 = r/c \Rightarrow \boxed{b, c/c} \Rightarrow [b]_s (-) a + [b]_s = a + c = c/r \Rightarrow \boxed{a, 1/r}$$