

$$\sqrt{n^2 - 4n + 1} = y \quad n_{\text{ext}} = \frac{b}{2a} = \frac{4}{2} = 2 \quad y_{\text{ext}} = 9 - 1 + 1 = -1$$

$$R = \sqrt{[-1, +\infty)} = [0, +\infty) \quad \checkmark$$

$$\sqrt{-n^2 + 11n + 10} = y \quad \text{ext} = \max \quad n_{\text{ext}} = \frac{-b}{-2a} = \frac{-11}{-2} = 5.5$$

$$R = \sqrt{(-\infty, 10]} = [0, \sqrt{10}] \quad \checkmark$$

$$y_{\text{ext}} = -11 + 11 + 10 = 10$$

$$y = n^4 + 11n^2 + 1n + 1 \quad R_f = \mathbb{R} \quad \checkmark$$

$$y = \sqrt{n^4 + 11n^2 + 1n + 1} \quad R_f = [0, +\infty) \quad \checkmark$$

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$$R = \sqrt{(-\infty, +\infty)}$$

$$R_f = R - \left\{ \frac{a}{c} \right\}$$

$$\text{الف) } y = \frac{11n+1}{n-2} \quad R_f = \mathbb{R} - \left\{ \frac{11}{2} \right\} \quad \checkmark$$

$$\text{ب) } y = \sqrt{\frac{11n+1}{n+11}}$$

$$R_{\text{منفی}} = \mathbb{R} - \left\{ \frac{11}{2} \right\}$$

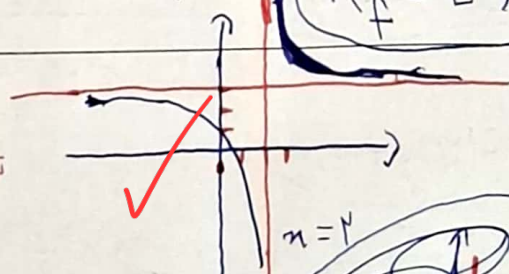
$$R_f = [0, +\infty) - \left\{ \frac{11}{2} \right\} \quad \checkmark$$

$$\text{الف) } \frac{11n+1}{n-2} = y \quad \text{نقطہ لکھی}$$

$$n=0 \Rightarrow y = -\frac{1}{2}$$

$$R = \text{ریشہ منقسم} = \text{مقابلہ قائم}$$

$$\text{مقابلہ قائم} = \frac{a}{c} = \frac{11}{2} = 5.5$$



$$\frac{11n-11}{-11n+11} = -1$$

$$\text{ب) } \frac{11n-11}{1-11n} = 1$$

$$y = \cos^2 n + \frac{1}{\cos^2 n} \Rightarrow R = [1, +\infty) \quad \checkmark$$

$$y = \frac{1}{a} + a \quad a > 0$$

$$y = \sqrt{\frac{n^2+1}{n}} = \sqrt{n + \frac{1}{n}} \Rightarrow$$

$$R = (-\infty, \sqrt{2}] \cup [\sqrt{2}, +\infty) \quad \checkmark$$

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