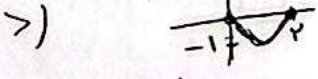
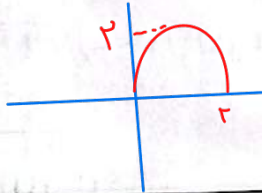
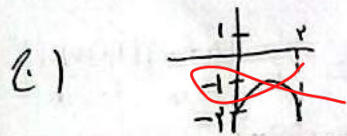
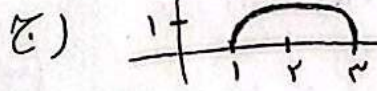


۱۶، ۱۷، ۱۸



۱، ۵



۱

الف) $\frac{\Delta \pm \sqrt{\Delta^2 - 4\alpha\beta}}{2} < \frac{2}{0-0} +$
 $\Delta = 4 - 4 = 0$
 $\frac{2 \pm 0}{2} = 1$
 $x = 1$
 سوال فقط بزرگتر از صفر فرستاده

ب) $(n-1)(n-9) < 0$
 $n=1 \quad n=9$

ب) $(n-1)(n-4) < 0$
 $n=1 \quad n=4$
 $\frac{1}{0-0} +$
 $(-\infty, 1) \cup (4, +\infty)$
 صفری خطی
 فزایش نشود!!!

$\frac{1}{0-0} +$
 $(-\infty, 1) \cup (4, +\infty)$
 $1 \leq n \leq 4$

۲

ج) $(n+1)(n+4)$
 $n=-1 \quad n=-4$
 $\frac{-1}{0-0} +$
 $(-\infty, -1) \cup (-4, +\infty)$

الف) $n-5 \neq 0 \rightarrow n \neq 5 \Rightarrow \{5\} = D_f$

ب) $n^2 - 9n + 14 \neq 0$

یا بین صفحه مطالعه شود

۳

$(n-1)(n-4)$
 $n=1 \quad n=4$
 $\frac{1}{0-0} +$
 $(-\infty, 1) \cup (4, +\infty)$

الف) $n^2 - 1 = 0 \rightarrow n = \pm 1$
 $n^2 - n = 0$
 $n(n-1) = 0$
 $n=0 \quad n=1$
 $\frac{-1}{0-0} +$

$(1, +\infty) \cup (-\infty, -1) \cup (0, 1)$

ب) $n^2 - 14 = 0 \rightarrow n = \pm \sqrt{14}$
 $n^2 - 4n + 1 = 0$
 $(n-4)(n-1) \rightarrow n=4 \quad n=1$
 $\frac{-4}{0-0} +$
 $(4, +\infty) \cup (-\infty, -4) \cup (1, 4)$

$n = \pm \sqrt{14}$

الف) $4 - \sqrt{2-n} \geq 0$
 $4 \geq \sqrt{2-n} \rightarrow 16 \geq 2-n \rightarrow n \geq -14$
 $\sqrt{2-n} \geq 0$
 $2-n \geq 0$
 $n \leq 2$
 $I \cap II \Rightarrow [-14, 2]$

ب) $3 - \sqrt{n-2} \geq 0$
 $3 \geq \sqrt{n-2} \rightarrow 9 \geq n-2 \Rightarrow n \leq 11$
 $\sqrt{n-2} \geq 0 \rightarrow n-2 \geq 0 \rightarrow n \geq 2$
 $\Rightarrow [2, 11]$

۵

$$\text{الف) } 4 - 2n^2 \geq 0$$

$$4 \geq 2n^2$$

$$2 \geq n^2$$

$$n \leq \pm \sqrt{2}$$

$$[-\sqrt{2}, \sqrt{2}]$$

(ج) ✓

$$\text{ب) } 3|m| - 9 \geq 0$$

$$3|m| \geq 9$$

$$|m| \geq 3$$

$$\{n \geq 3\} \cap \{n \leq -3\} \rightarrow (-\infty, -3] \cup [3, +\infty)$$

٦

$$\text{الف) } |m| - 3 \neq 0$$

$$|m| \neq 3 \rightarrow n \neq \pm 3$$

$$D_f = \mathbb{R} - \{\pm 3\}$$

باید از دیکال تعریف
سود

ل.١.٥

$$\text{ب) } \sqrt{n} - 3 \neq 0$$

$$\sqrt{n} \neq 3 \rightarrow n \neq 9 \rightarrow D_f = \mathbb{R} - \{9\} \quad [0, +\infty) - \{9\}$$

٧

$$\text{الف) } 2 \cos - 1 \neq 0 \rightarrow 2 \cos \neq 1 \rightarrow \cos \neq \frac{1}{2} \Rightarrow \mathbb{R} - \{2k\pi \pm \frac{\pi}{3}\}$$

$$\text{ب) } 2 \sin + 1 \neq 0 \rightarrow 2 \sin \neq -1 \rightarrow \sin \neq -\frac{1}{2} \Rightarrow \mathbb{R} - \{2k\pi + \frac{7\pi}{6}, 2k\pi + \frac{11\pi}{6}\}$$

$$\text{ج) } \frac{\sin}{\cos} \neq 0 \rightarrow \cos \neq 0 \rightarrow 90^\circ, 270^\circ \quad \cot - 1 \neq 0 \rightarrow \cot \neq 1 \rightarrow 45^\circ, 225^\circ \Rightarrow \mathbb{R} - \{k\pi + \frac{\pi}{4}, k\pi + \frac{5\pi}{4}\}$$

$$\sin \neq 0$$

ل.١.٧.٥

$$\text{د) } 2 \sin^2 - 5 \neq 0$$

$$2 \sin^2 \neq 5 \rightarrow \sin^2 \neq \frac{5}{2} \rightarrow \sin \neq \frac{\sqrt{5}}{2} \rightarrow \mathbb{R} - \{2k\pi + \frac{\pi}{2}, 2k\pi + \frac{3\pi}{2}\}$$

$$\sqrt{2|m-2| - \frac{1}{2}} > 0 \rightarrow 2|m-2| - \frac{1}{2} > 0 \rightarrow 2|m-2| > \frac{1}{2}$$

$$|m-2| > \frac{1}{4}$$

$$\{m-2 > \frac{1}{4} \rightarrow m > \frac{9}{4}$$

$$\{-m+2 > \frac{1}{4} \rightarrow m < \frac{7}{4}\} \rightarrow (-\infty, \frac{7}{4}) \cup (\frac{9}{4}, +\infty)$$

(ج) ✓

٩

$$\text{الف) } 4 - 2|m| \geq 0$$

$$2|m| \leq 4 \rightarrow |m| \leq 2 \rightarrow -2 \leq m \leq 2 \xrightarrow{b} [-2, 2]$$

$$\text{ب) } \sqrt{\frac{|n|}{|m|}} \rightarrow \frac{0}{0} +$$

$$\rightarrow \text{باید از دیکال تعریف} \rightarrow |m| \neq 0 \rightarrow D_f = \mathbb{R} - \{0\}$$

(ج) ✓

١٠

$$\frac{(x-1)(x-2)}{x-5} < 0 \rightarrow$$

$$\begin{array}{c} 1 \quad 2 \quad 5 \\ \hline - \quad + \quad - \quad + \end{array}$$

الف)

$$x < 1 \quad \underline{\quad} \quad 2 < x < 5$$

$$\frac{(x-1)(x+1)}{(x-5)(x-1)} \geq 0 \rightarrow$$

$$\begin{array}{c} -1 \quad *1 \quad 5 \\ \hline + \quad - \quad - \quad + \end{array}$$

ب)

$$x \leq -1 \quad \underline{\quad} \quad x > 5$$