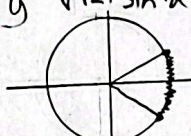
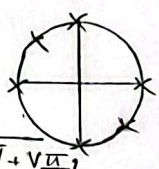
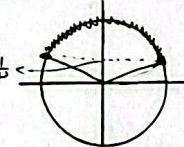
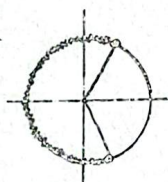
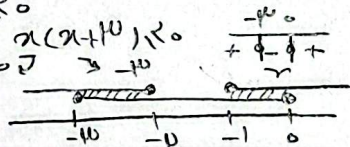


نام و نام خانوادگی ... (نام و نام خانوادگی خود را بنویسید) ... پاسخنامه تشریحی تکلیف شماره ... کلاس ... (نام و نام خانوادگی خود را بنویسید) ...

۱۹۵۵ آفرین

|                                                                                                                                                                                                                                                                                                                                                                                                                            |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <p>الف) <math>\frac{x+10}{\frac{x^2+10x-1}{x^2+10x-1}} = \frac{x+10}{(x^2+10x-1)(x-1)} = \frac{x+10}{(x-1)(x+1)(x+10)}</math></p> <p>ب) <math>\frac{x+10}{\frac{x^2+10x-1}{x^2+10x-1}} = \frac{x+10}{(x+1)(x^2+10x-1)} = \frac{x+10}{(x+1)(x+1)(x+10)}</math></p> <p><math>D_f = R - \{1, \frac{1}{p}, -10\}</math></p> <p><math>D_f = R - \{1, -\frac{1}{p}, -10\}</math></p>                                             | ۱ |
| <p>الف) <math>\frac{x+10}{\frac{x^2+10x-1}{x^2+10x-1}} = \frac{x+10}{(x-1)(x^2+10x-1)}</math></p> <p>ب) <math>y = \sqrt{\frac{x+10}{x^2+10x-1}} = \frac{x+10}{(x-1)(x^2+10x-1)}</math></p> <p><math>D_f = R - \{1\}</math></p> <p><math>D_f = (-\infty, 1] \cup (1, +\infty)</math></p>                                                                                                                                    | ۲ |
| <p><math>y = \frac{p}{x^2 \omega (x-1) - p(x+10)}</math></p> <p><math>x &gt; 1 \rightarrow x^2 \omega (x-1) - p(x+10) = x^2 \omega x + 10 - p(x+10) = x^2 - vx + 10 - p(x+10) = 0</math></p> <p><math>x &lt; 1 \rightarrow x^2 \omega (1-x) - p(x+10) = x^2 \omega + 10x - p(x+10) = x^2 + vx = 0 \rightarrow x(x+v) = 0</math></p> <p><math>D_f = R - \{1, 0, 2, 10\}</math></p>                                          | ۳ |
| <p>الف) <math>y = \sqrt{-x-10} \rightarrow [-x-10] &gt; 0 \rightarrow [-x] &gt; 10 \rightarrow D_f = (-\infty, -10]</math></p> <p>ب) <math>y = \frac{10x^2+9}{[x]^2-2[x]-10}</math></p> <p><math>x \in [1, 10) \rightarrow [x] = -1</math></p> <p><math>D_f = (R - \{10, 1\}) \cup [-10, 1)</math></p>                                                                                                                     | ۴ |
| <p>الف) <math>[x - \frac{1}{10}] + [x + \frac{1}{10}] \geq 0 \Rightarrow [x - \frac{1}{10}] + [x - \frac{1}{10}] + 1 \geq 0</math></p> <p>ب) <math>[x - \frac{1}{10}] + [\frac{1}{10} - x] \geq 0</math></p> <p><math>[A] + [-A] \rightarrow x \in \mathbb{Z} \rightarrow x - \frac{1}{10} \in \mathbb{Z} \rightarrow x \in \frac{1}{10} + \mathbb{Z} \rightarrow D_f = \{\frac{1}{10} + k   k \in \mathbb{Z}\}</math></p> | ۵ |

$\frac{x^2+10x-1}{x^2+10x-1} = \frac{x-1}{x^2+10x-1}$ 
 $\frac{x^2+10x-1}{x^2+10x-1} = \frac{x-1}{x^2+10x-1}$ 
 $\frac{x^2+10x-1}{x^2+10x-1} = \frac{x-1}{x^2+10x-1}$ 
 $\frac{x^2+10x-1}{x^2+10x-1} = \frac{x-1}{x^2+10x-1}$

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| <p>الف) <math>y = \frac{\cos x + 1}{\sin x} \rightarrow \tan x \neq -1</math><br/> <math>\frac{\sin}{\cos}, \cos \neq 0</math><br/> <math>\hookrightarrow 145^\circ, 225^\circ \rightarrow \frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}</math></p> <p>ب) <math>y = \sqrt{1 - F \sin^2 x} \rightarrow 1 - F \sin^2 x \geq 0 \rightarrow 1 \geq F \sin^2 x \rightarrow \sin^2 x \leq \frac{1}{F} \rightarrow  \sin x  \leq \frac{1}{\sqrt{F}}</math></p> <p><math>D_f = [K\pi - \frac{\pi}{4}, K\pi + \frac{\pi}{4}]</math></p>   | 6  |
| <p>الف) <math>y = \sqrt{P \sin x} \rightarrow P \sin x \geq 0 \rightarrow \sin x \geq 0 \rightarrow \sin x \geq \frac{1}{P}</math></p> <p>ب) <math>y = \sqrt{1 - P \cos x} \rightarrow 1 - P \cos x \geq 0 \rightarrow P \cos x \leq 1 \rightarrow \cos x \leq \frac{1}{P}</math></p> <p><math>D_f = [K\pi + \frac{\pi}{4}, K\pi + \frac{5\pi}{4}]</math></p> <p><math>D_f = [K\pi + \frac{\pi}{\omega}, K\pi + \frac{5\pi}{\omega}]</math></p>                                                                           | 7  |
| <p>الف) <math>\arccos(x^2 + px + 1) \rightarrow -1 \leq x^2 + px + 1 \leq 1</math></p> <p>ب) <math>\cos y = \sqrt{\omega - px}</math></p> <p><math>D_f = [1, \frac{\omega}{p}]</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                  | 8  |
| <p>الف) <math>y = \log_p(1 - \log_p x) \rightarrow 1 - \log_p x \geq 0 \rightarrow \log_p x \leq 1 \rightarrow x \leq p</math></p> <p>ب) <math>\log_p(1 - \log_p \frac{x}{p}) \rightarrow 1 - \log_p \frac{x}{p} \geq 0 \rightarrow \log_p \frac{x}{p} \leq 1 \rightarrow \frac{x}{p} \leq p \rightarrow x \leq p^2</math></p> <p><math>D_f = (\frac{1}{p}, +\infty)</math></p> <p>چون متباين هدايت حبه ناسازگار بعضي مرشد!</p>                                                                                                                                                                                                                                                               | 9  |
| <p>الف) <math>y = \sqrt{p^{F_n - n^p} - 1} \rightarrow p^{F_n - n^p} - 1 \geq 0 \rightarrow p^{F_n - n^p} \geq 1 \rightarrow F_n - n^p \geq 0</math></p> <p>ب) <math>(\frac{p_n + \omega}{p_n + F})!</math></p> <p><math>D_f = [1, \mu]</math></p> <p><math>\frac{p_n + \omega}{p_n + F} \in W \rightarrow p_n + \omega = p_n W + F W</math><br/> <math>p_n - p_n W = F W - \omega</math><br/> <math>n(p - p_w) = F W - \omega \rightarrow n = \frac{F W - \omega}{p - p_w}</math></p> <p><math>\{n   n = \frac{F W - \omega}{p - p_w}, K \in W\}</math></p>                                                                                                                                  | 10 |

$$9 - \text{ب}) \quad y = \log_r \left( 1 - \log^{\frac{n}{r}} \frac{1}{r} \right) \rightarrow \log^{\frac{n}{r}} \frac{1}{r} \rightarrow n > .$$

$$\hookrightarrow 1 - \log^{\frac{n}{r}} \frac{1}{r} > 0 \rightarrow \log^{\frac{n}{r}} \frac{1}{r} < 1 \xrightarrow{\text{منابعین (1,0)}} n > \frac{1}{r}$$

$$D f_2 \left( \frac{1}{r}, +\infty \right)$$