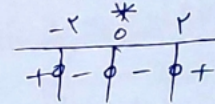


الف) $x^2 + x = 0 \rightarrow x(x+1) = 0 \rightarrow x = 0, -1 \rightarrow D_f = \mathbb{R} - \{0, -1\}$

ج) $\Delta = b^2 - 4ac \rightarrow \Delta = 1 - 4 = -3$ (منفی) $\rightarrow D_f = \mathbb{R}$

ب) $\Delta = 4 - 4 = 0$ (صفر) $\rightarrow D_f = \mathbb{R}$



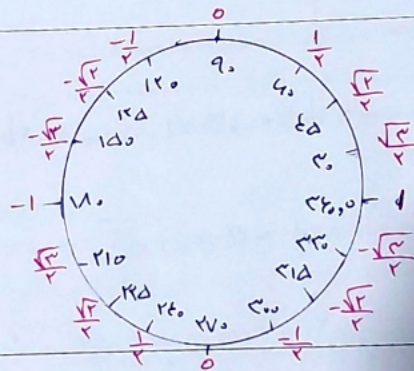
د) $x^2 - 4x = 0 \rightarrow x(x-4) = 0 \rightarrow D_f = \mathbb{R} - \{0, 4\}$

الف) $x < 4, x > 2 \rightarrow D_f = 2 < x < 4 \rightarrow [2, 4]$

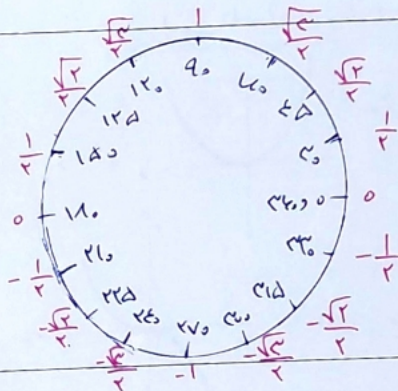
ب) $x^2 \geq 4 \rightarrow D_f = \mathbb{R}$

ج) $x > 4, x \neq 2 \rightarrow D_f = [2, +\infty) - \{2\}$

د) $x^2 \leq 4 \rightarrow D_f = \mathbb{R}$
چون $x^2 \leq 4$ همیشه درست است و x هر عددی می‌تواند باشد.



cos



sin

الف) $\cos \frac{2\pi}{3} \rightarrow \frac{-1}{2} \Rightarrow \sin 0^\circ, \sin 150^\circ \rightarrow \sin \frac{\pi}{4}, \sin \frac{3\pi}{4}$

ب) $\cos \frac{11\pi}{6} \rightarrow \frac{\sqrt{3}}{2} \Rightarrow \sin 4^\circ, \sin 16^\circ \rightarrow \sin \frac{\pi}{6}, \sin \frac{5\pi}{6}$

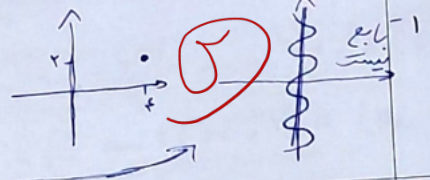
19

نام و نام خانوادگی: پاسنامه تشریحی تکلیف شماره: ۳۰۰ کلاس: ۳م (جمع)

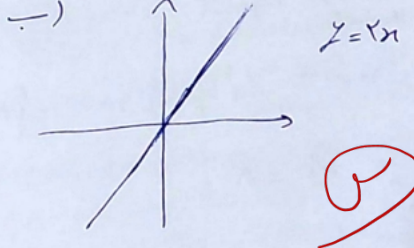
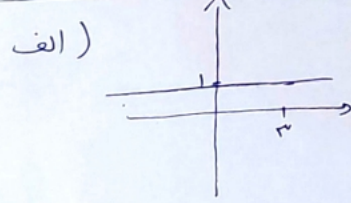
الف) $y^3 - x = 2x^2 \xrightarrow{x_1 = x_2} y^3 - x_1 - 2x_1^2 = y^3 - x_2 - 2x_2^2 \rightarrow y^3 = y^3 \rightarrow y_1 = y_2$ تابع

ب) $|y| + x^2 = x + 3 \xrightarrow{x=0} |y| = 3 \rightarrow y = \pm 3$ تابع نیست

ج) $\sqrt{x-4} + |y-2| = 0$ فقط وقتی می توانیم که $x=4$ و $y=2$ را بگیریم آن دو نقطه ای می شود که قابل قبول نیست



د) $x = \cos y$

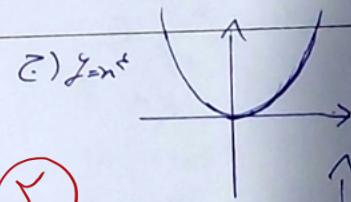
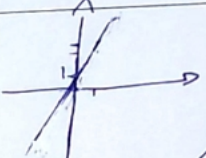


الف) تابع جابجایی $\rightarrow b=0, a=1 \rightarrow a+2b=1+0=1$

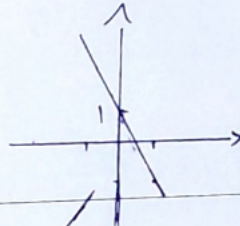
$a = -\frac{1}{2} \rightarrow a+2b = -\frac{1}{2} + 2(-\frac{1}{2}) = -\frac{3}{2}$ $x_2 = \frac{-b}{2a} = \frac{-(-\frac{1}{2})}{2(-\frac{1}{2})} = 1$ $a = -\frac{1}{2}$

$y_2 = 1 \rightarrow 1 = (2)^2 - 2(2) + b \rightarrow b = 1$ $b = 1$

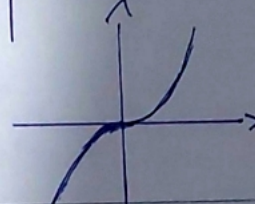
الف) $y = 2x + 1$



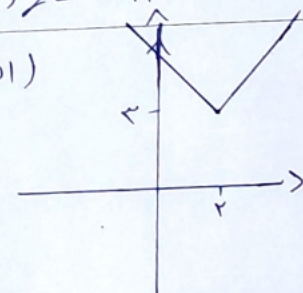
ب) $y = -2x + 1$



د) $y = x^3$



الف)



ب)

