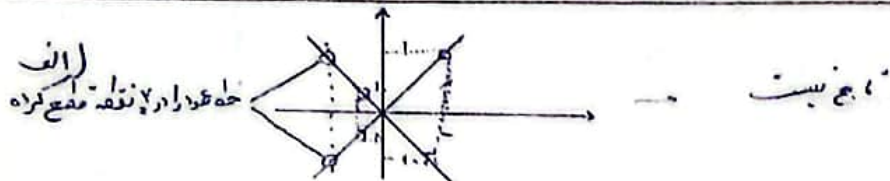
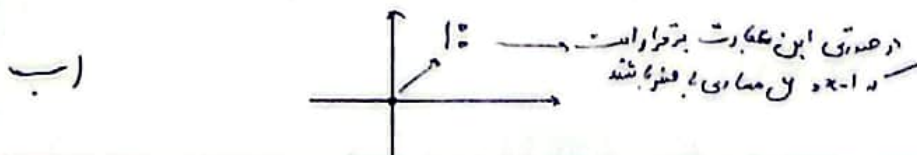


$$a^2 + 3 = 4a \rightarrow a^2 - 4a + 3 = 0 \rightarrow a + b + c = 0 \begin{cases} 3 \\ 1 \end{cases} \rightarrow a = 3, 1$$

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$$\text{الف) } |y-1| = \sqrt{x-2} \rightarrow |y-1| = \sqrt{3-2} \rightarrow |y-1| = \sqrt{1} \rightarrow y-1 = \pm 1$$

$$\text{ب) } y^4 - y = \frac{x^5}{y} \rightarrow y^5 - y = \frac{0}{y} = 0 \rightarrow y(y^4 - 1) = 0 \rightarrow y = 0$$

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$$\text{ج) } \sin^2 x + \cos^2 \frac{y}{4} = 1 \rightarrow \sin^2 45 + \cos^2 \frac{y}{4} = 1 \rightarrow \frac{1}{4} + \cos^2 \frac{y}{4} = 1 \rightarrow \cos^2 \frac{y}{4} = \frac{3}{4} \rightarrow \cos \frac{y}{4} = \pm \frac{\sqrt{3}}{2} \rightarrow y = 30, 150$$

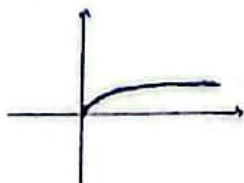
$$\text{د) } 2xy = x \rightarrow 2x \times y = 0 \rightarrow 0 = 0 \rightarrow y = \mathbb{R}$$

$$\text{الف) } x^2 + |y-1| = 4x \rightarrow 1 + |y-1| = 4 \rightarrow |y-1| = 3 \rightarrow y = -2, 4$$

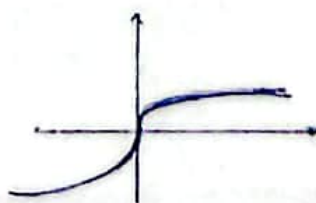
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$$\text{ب) } x^2 + 3x = 0 \rightarrow x(x+3) = 0 \rightarrow x = 0, -3$$

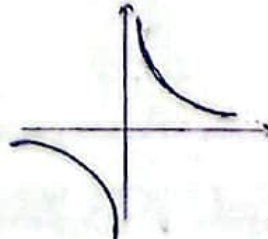
$$\text{الف) } y = \sqrt{x}$$



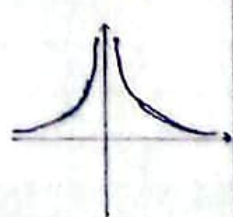
$$\text{ب) } y = \sqrt[3]{x}$$



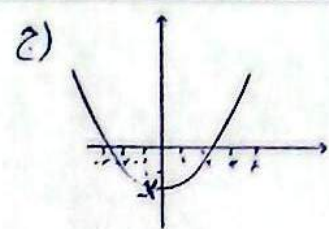
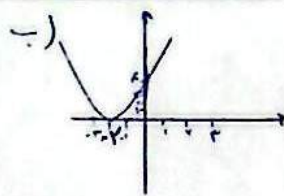
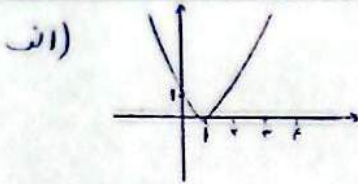
$$\text{ج) } y = \frac{1}{x^3}$$



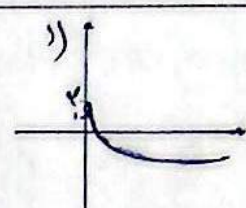
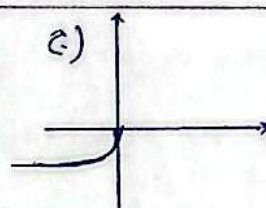
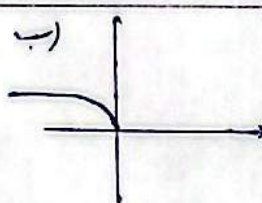
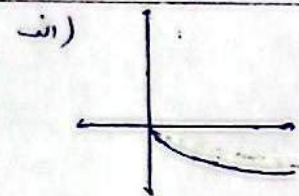
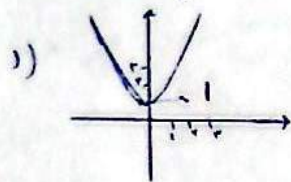
$$\text{د) } y = \frac{1}{x^4}$$



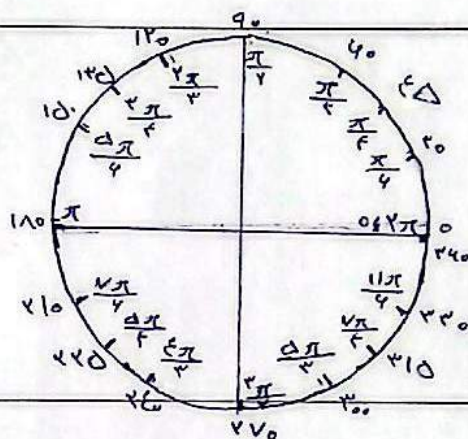
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در دایره بالا کشیده شده

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الف) $\cos 120^\circ \rightarrow \left| \begin{array}{l} \cos \\ \sin \end{array} \right| \rightarrow \cos 120^\circ = -\frac{1}{2}$

ب) $\sin 150^\circ \rightarrow \left| \begin{array}{l} \cos \\ \sin \end{array} \right| \rightarrow \sin 150^\circ = \frac{1}{2}$

ج) $\cos \frac{4\pi}{3} = \cos 240^\circ \rightarrow \left| \begin{array}{l} \cos \\ \sin \end{array} \right| \rightarrow \cos 240^\circ = -\frac{1}{2}$

د) $\sin \frac{11\pi}{6} = \sin 330^\circ = -\frac{1}{2}$

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