

f = { (1, a), (1, a^2 + 3), (2, 3a) }

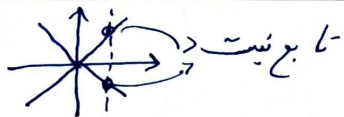
f a = a^2 + 3

a^2 - 4a + 3 = 0 $\xrightarrow{\text{جمع فریب}} a < 3$

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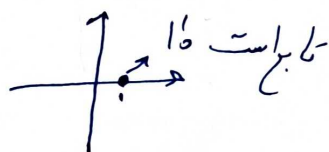
الف) |y| = |x|

y = x
y = -x



ب) |y| + sqrt(x-1) = 0

y = 0
x - 1 = 0 -> x = 1



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الف) |y-1| = sqrt(x-2) -> y-1 = 2 -> y = 3
x = 2 -> y+1 = 2 -> y = 1

ب) y^2 - y = x^2 -> y(y-1) = x^2 -> y(y^2+1)(y+1)(y-1) = x^2 = 0 -> y = 0, 1

ج) sin^2 x + cos^2 y = 1 -> cos^2 y = 1 - sin^2 x = cos^2 x -> cos y = cos x -> y = x

د) 2xy = x -> x=0 -> y in R -> y = 0, 1/2, 3/2, 5/2, ...

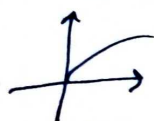
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الف) x^2 + |y-1| = 4 -> |y-1| = 4 - x^2 -> y = 1 + sqrt(4-x^2)

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ب) y^2 + 3x = 0 -> y^2 = -3x -> y = sqrt(-3x)

الف) y = sqrt(x) -> فریب زود



ب) y = sqrt(x) -> فریب زود



د) y = 1/x^2 -> زوج

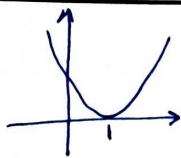


ج) y = 1/x^3 -> فرد

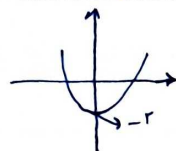


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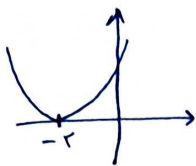
الف) $y = (n-1)^2$



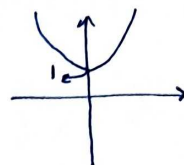
ج) $y = n^2 - 1$



ب) $y = (n+1)^2$



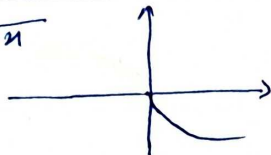
د) $y = n^2 + 1$



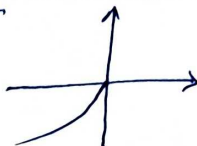
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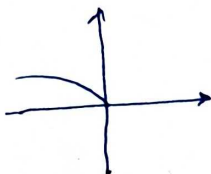
الف) $y = -\sqrt{n}$



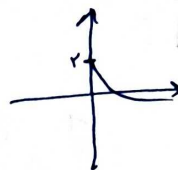
ج) $y = -\sqrt{n}$



ب) $y = \sqrt{n}$

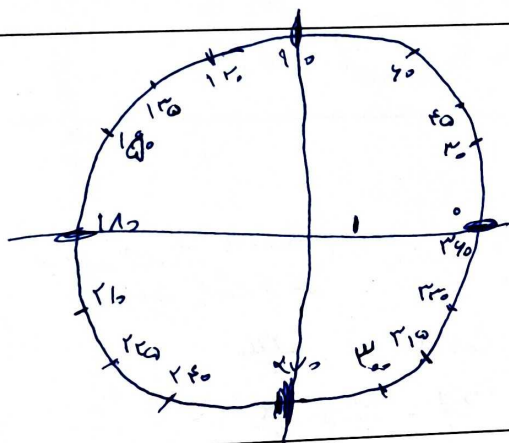


د) $y = -\sqrt{n+1}$



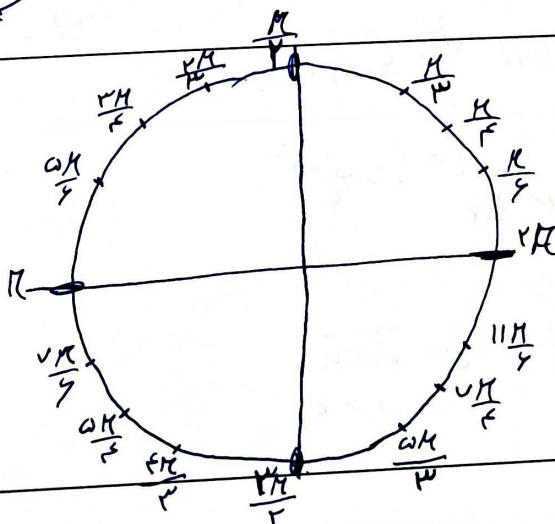
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الف) $\cos 120^\circ = -\frac{1}{2}$

ب) $\sin 150^\circ = \frac{1}{2}$

ج) $\cos \frac{5\pi}{3} = \frac{1}{2}$

د) $\sin \frac{11\pi}{4} = -\frac{1}{2}$

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