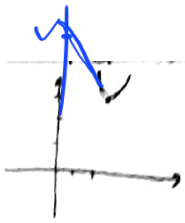
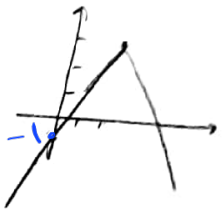
11,75

۱- صعودی نزولی



۳



۴-

الف)

ب)

ج)

د)

$y=(m-2)x^2-2(m+1)x+10$

$a<0 \longrightarrow m-2<0 \longrightarrow m<2$

$S<0 \longrightarrow \frac{2(m+1)}{(m-2)}<0 \longrightarrow -1<m<2$

$P>0 \longrightarrow \frac{10}{m-2}>0 \longrightarrow m>2$

$\Delta>0 \longrightarrow 4(m+1)^2-40(m-2)>0 \longrightarrow m^2-8m+21>0$

$\Delta=64-84=-20$ غ ق

$\Delta<0$

$y=(m-2)x^2-2(m+1)x+10$

$\Delta<0 \longrightarrow m^2-8m+21>0$

$\Delta=64-84=-20$ غ ق

$\Delta<0$

$P>0 \longrightarrow m>2$

$S<0 \longrightarrow -1<m<2$

$\longrightarrow -1<m<2$

$\Delta>0$ ✓

$P>0 \longrightarrow m>2$

$\longrightarrow m<2$

۴-ب) حاصلضرب ...

$-\frac{b}{2a} = \frac{2(m+1)}{2(m-5)} = -2 \to 2m+2 = -4m+10 \to 6m = 6 \to m = 1$ ✓

۵-

$\frac{3x^2}{4} - (2\sin a)x + \frac{4}{3} = 0$

$\alpha \cdot \alpha = \frac{c}{a} = \frac{\frac{4}{3}}{\frac{3}{4}} = \frac{9}{4} \to \alpha^2 = \frac{9}{4}$

$2\alpha = \frac{2\sin a}{\frac{3}{4}} \to 2\alpha = 3\sin a \xrightarrow{\text{به توان ۲}} 4\alpha^2 = 9(\sin^2\alpha)$

$\alpha^2 = \frac{9}{4}(\sin^2\alpha)$

$\frac{9}{4}(\sin^2\alpha) = \frac{9}{4} \to \sin^2\alpha = +1$

$\sin\alpha = 1 \to x = \frac{3}{2}$ ✓

$\sin\alpha = -1 \to x = -\frac{3}{2}$ X

۰/۷۵

۶-

$y = \frac{(3x^2-2x-1)(2x^2-3x-5)}{1-x^2} = \frac{(x-1)(3x+1)(x+1)(2x-5)}{1-x^2}$ ، $-(1-x^2)$ ، $x \neq 1, -1$

۱/۵

$3x^2-2x-1 \div (x-1) = 3x+1$ ، $3x^2-3x$ ، $x-1$

$2x^2-3x-5 \div (x+1) = 2x-5$ ، $2x^2+2x$ ، $-5x-5$

$-(3x+1)(2x-5) = y$

$-(6x^2-13x-5) = y$

$-6x^2+13x+5 = y$

$x = -\frac{b}{2a} = \frac{-13}{-12} = \frac{13}{12}$

$y = \frac{289}{24}$

حلی جعفریان

– b

①

$y_1 = ۲x^2 + (m+1)x + m + ۶$

$y_2 = -x$

$y_1 = y_2 \rightarrow -x = ۲x^2 + (m+1)x + m + ۶$

$۲x^2 + (m+۲)x + m + ۶ = ۰$

$\Delta = ۰ \qquad b^2 - ۴ac = ۰ \rightarrow (m+۲)^2 - ۸(m+۶) = ۰$

$m^2 + ۴m + ۴ - ۸m - ۴۸ = ۰$

$m^2 - ۴m - ۴۴ = ۰$

$m = +۱۲ , -۴$

✗ ✓