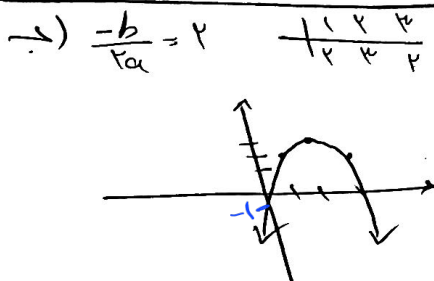
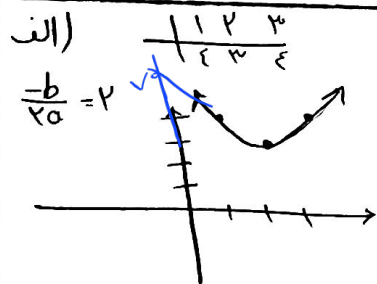


15,5

نام و نام خانوادگی: باسرخامه تشریحی تکلیف شماره: کلاس:



1,5

الف) $m > 0$ و $m < -3$
 $\Delta > 0$
 $(m+1)^2 - 4(2)(\frac{1}{4}m+2)$
 $m^2 + 2m + 1 - 2m - 16 > 0$
 $m^2 - 15 > 0$
 $(m-4)(m+3) > 0$

ب) $m = -3$ و $m = 0$
 $\Delta = 0$
 $m^2 - 2m - 15 = 0$
 $(m+3)(m-5) = 0$

ج) $-3 < m < 0$
 $\Delta < 0$
 $m^2 - 2m - 15 < 0$
 $(m-5)(m+3) < 0$

د) $m \geq 0$ و $m \leq -3$
 $\Delta \geq 0$
 $m^2 - 2m - 15 \geq 0$
 $(m-5)(m+3) \geq 0$

5

$s = \frac{-b}{a} = \frac{2(m+1)}{m-2}$

$p = \frac{c}{a} = \frac{1}{m-2}$

الف) $\frac{1}{m-2} > 0$

$m > 2$ $\rightarrow Q$ $m < -1$
 $s < 0$ $m < 2$

ب) $\frac{1}{m-2} < 0$ $m < 2$

$|r_1| > |r_2|$ $r_1 < 0 < r_2$ $-r_1 > r_2$

$-(r_1 + r_2) > 0$ $r_1 + r_2 < 0$

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

$-1 < m < 2$

5

الف) $\frac{1}{m-2} < 0$ $m < 2$

$a = m - 2 < 0$

$y < 0$

ب) $\frac{-b}{2a} = \frac{-2(m+1)}{2(m-2)} = \frac{m+1}{m-2} = -2$

$m+1 = -2m+4$

$3m = 3$

$m = 1$

5

$2x^2 - 12(\sin \alpha)x + 9 = 0$

$a = 2$ $b = 12\sin \alpha$ $c = 9$

$\Delta \geq 0$ $(-12\sin \alpha)^2 - 4(2)(9) = 144\sin^2 \alpha - 72 \rightarrow 144(\sin^2 \alpha - 1)$

$\sin^2 \alpha - 1 \geq 0$ $\sin^2 \alpha = 1$ $\sin \alpha = \pm 1$

منفی غیر قابل قبول

$x = \frac{3}{2}$

5

$$y = - \frac{(4x^2 - 12x - 1)(4x^2 - 12x - 4) - 4x^2(4x^2 - 12x - 4) - 1(4x^2 - 12x - 4)}{x^2 - 1}$$

$$b = x \neq \pm 1$$

$$y = - \frac{4x^2 - 12x - 11x^2 + 12x + 4}{x^2 - 1} = (4x^2 - 12x - 4)$$

$$y = -4x^2 + 12x + 4 \quad \frac{-b}{2a} = -\frac{12}{-8} = \frac{3}{2} \quad -4\left(\frac{3}{2}\right)^2 + 12\left(\frac{3}{2}\right) + 4 = \frac{14}{1} = 14$$

$$ws = w\rho + V \quad \frac{wm + 9}{m} = \frac{-10 + Vm}{m}$$

$$s = \frac{m+V}{m}$$

$$wm + 9 = -10 + Vm$$

$$\rho = \frac{-V}{m}$$

$$m = 5$$

$$\alpha^2 + \beta^2 = s^2 - \rho^2$$

$$s = \frac{w}{V}, \rho = \frac{-1}{V}$$

$$\left(\frac{w}{V}\right)^2 - V\left(\frac{-1}{V}\right) = \left(\frac{14}{5}\right)^2$$

$$\rho = V \rightarrow \alpha = \frac{V}{\beta}, \beta = \frac{V}{\alpha}$$

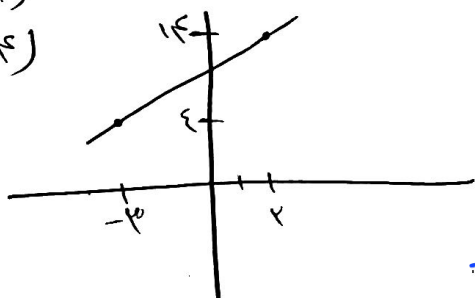
$$s = w$$

$$\frac{E\alpha + \beta^2}{w\beta^2} = \frac{E\alpha}{w\beta^2} + \frac{\beta^2}{w\beta^2} = \frac{E\alpha}{w\left(\frac{V}{\alpha}\right)^2} + \frac{\beta^2}{w} \Rightarrow \frac{E\alpha}{w \times \frac{V^2}{\alpha^2}} + \frac{\beta^2}{w} = \frac{\alpha^2 + \beta^2}{w}$$

$$\frac{s^2 - \rho^2}{w} = \frac{14w - w_0}{w} = \frac{4w}{w} = 14$$

$$(1, 1)$$

$$(-1, 1)$$



$$\frac{-w + V}{V} = \frac{-1}{V}$$

$$x = \frac{-1}{V}$$

$$a + b = 1$$

$$a - b = 0$$

$$\rightarrow a = 1, b = 0$$

$$x = \frac{-1}{V}$$

$$\Delta = 0 \rightarrow m = +1, -1$$