

$$\frac{x}{y} = \frac{\omega}{k}$$

$$x = \frac{\omega}{k} y$$

$$S_{\text{اولیه}} = \frac{\omega}{k} y^p$$

$$\frac{x+\alpha}{y} = \frac{1+\sqrt{\omega}}{p} \rightarrow x+\alpha = \frac{1+\sqrt{\omega}}{p} y$$

$$\frac{S'}{S} = \frac{1+\sqrt{\omega}}{p} y^p = \frac{1+\sqrt{\omega}}{p} \frac{\omega}{k} y^p = \frac{1+\sqrt{\omega}}{p} \frac{\omega}{k} y^p$$

$$\sqrt{\frac{x^p+y^p}{x}} = \frac{1+\sqrt{\omega}}{p} \rightarrow \frac{1+\sqrt{\omega}}{p} x = \sqrt{x^p+y^p} \rightarrow x^p+y^p = \frac{1+\sqrt{\omega}}{p} x^p$$

$$y^p = \left(\frac{1+\sqrt{\omega}}{p} - 1 \right) x^p \rightarrow \frac{x^p}{y^p} = \frac{p}{1+\sqrt{\omega}} = \frac{p(1-\sqrt{\omega})}{1-\omega} = \frac{\sqrt{\omega}-1}{p}$$

$$kx + \sqrt{kx^p + ka} = p$$

$$\frac{a+1}{a} = \frac{\frac{p}{k}+1}{\frac{p}{k}} = \frac{p}{k} = k/\omega$$

$$\sqrt{kx^p + ka} = p - kx \rightarrow kx^p + ka = p^2 - 2pkx + kx^2 \rightarrow kx^p - 2pkx + ka = 0$$

$$x^p - 2ka + p^2 = 0 \rightarrow (x-1)(x-p) = 0 \rightarrow x = 1 \text{ or } x = p$$

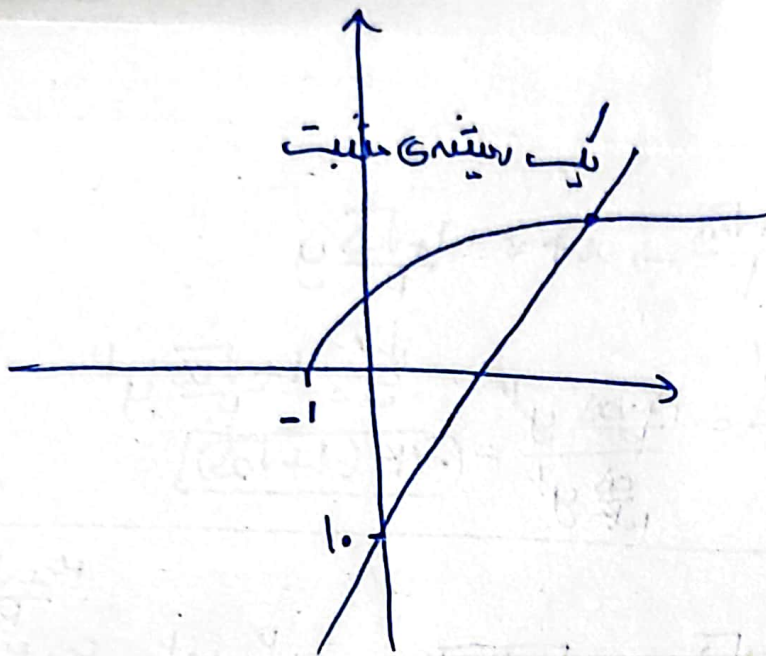
$$p - ka > 0 \rightarrow p > ka \rightarrow \frac{p}{k} > a$$

$$\frac{\sqrt{x+1}}{\sqrt{x-1}+k} - \frac{\sqrt{x+1}}{k-\sqrt{x-1}} = \frac{x-1}{\sqrt{x-1}}$$

$$x-1 > 0 \rightarrow x > 1$$

$$x+1 > 0 \rightarrow x > -1$$

$$\frac{-x+1+k\sqrt{x+1}-x+1-k\sqrt{x+1}}{x-1-k} = \frac{x-1}{\sqrt{x-1}} \rightarrow \frac{-2x+2}{x-1-k} = \frac{x-1}{\sqrt{x-1}} \rightarrow k\sqrt{x+1} = x-1$$



5.

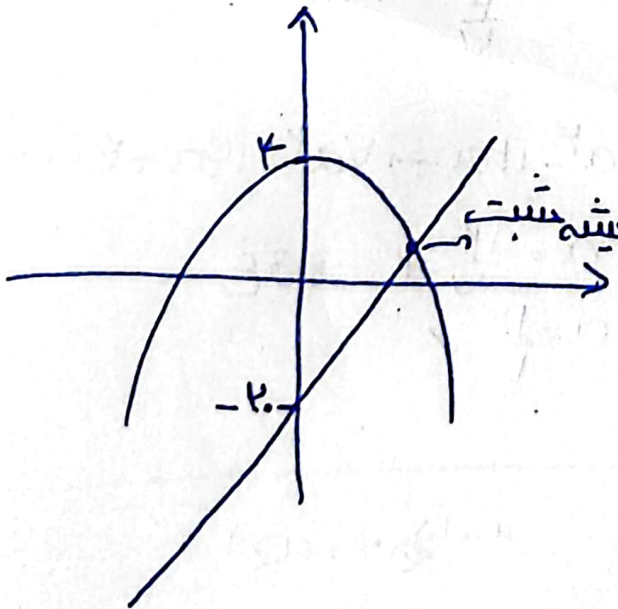
$$x = -1 \quad x = 2 \quad \leftarrow x^2 + 1.0x - 2 = 0$$

$$\leftarrow x^2 - 2 = -2 + 1.0x$$

$$\frac{x - \sqrt{x^2 - 2} - \sqrt{x^2 - 2} - x}{x - 2 + x} = \frac{-2\sqrt{x^2 - 2}}{x + x} = \frac{x - 2}{2\sqrt{x^2 - 2}} \rightarrow x^2 - 2 = -1.0(x - 2)$$

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منحرف اول مثبت



غ ق ق $x = 2$ = ریشه مثبت
خروج صفر

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$$\frac{r\alpha^r - r\alpha + 1}{\alpha^{r+1} - r\alpha + \alpha^r} = \frac{19}{9} \rightarrow 18\alpha^r - 18\alpha + 9 = 19\alpha^r + 19\alpha^{\frac{r}{2}} - 18r\alpha^{\frac{r}{2}}$$

$$19\alpha^r - 18r\alpha^{\frac{r}{2}} + 18\alpha^{\frac{r}{2}} - 18\alpha + 9 = 0$$

$$\frac{r(\alpha^{\frac{r}{2}} - \alpha) + 1}{(\alpha - \alpha^{\frac{r}{2}})^2} = \frac{19}{9} \quad \frac{r+1}{\alpha^r} = \frac{19}{9} \alpha = \frac{1}{r}, \frac{1}{r} \rightarrow \frac{1}{r} + \frac{1}{r} = 2$$

1.5

$$S_1 = 1, S_r = 1, 1+1=2$$

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زیر مقدر مطلق، جواب، باید + باشد، حقیقی و صحیح

$$-x^2 + 4x^2 + 4\alpha x - 100 > 0 \rightarrow 2 < x < 4$$

میله علامت - جواب ندارد به غیر از x (از این حل می شود)

$$-x^2 + 4x - 1 > 0 \rightarrow x^2 - 4x + 1 < 0 \rightarrow (x-2)(x-2) < 0 \rightarrow \frac{2}{x} + \frac{2}{x} = 4$$

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$$\mu y + x = 14 \rightarrow y = \frac{14-x}{\mu}$$

$$y = |x+1| + |x-1| \rightarrow \frac{-\mu}{-2x-1} \mid \frac{+1}{x+1} \mid \frac{+1}{x-1}$$

$$-2x-1 = \frac{14-x}{\mu} \rightarrow x = -1, y = 15$$

$$A \rightarrow (-1, 15)$$

$$AB = \sqrt{(1+1)^2 + (15-1)^2} = 14\sqrt{2}$$

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$$\mu = \frac{14-x}{\mu} \rightarrow x = 1, y = 13$$

$$B \rightarrow (1, 13)$$

$$y = \frac{1}{2}x + 2 \rightarrow (0, 2), (2, 4), (4, 6)$$

$$|x-2| = \frac{1}{2}x + 2 \rightarrow x = 4, y = 4$$

$$\frac{4\sqrt{2} \times 4\sqrt{2}}{2} = 16$$

$$y = -x + 2 \rightarrow AH = \frac{|-1-2+2|}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$

$$BC = \sqrt{(0-2)^2 + (2-4)^2} = 2\sqrt{2}$$

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$$T_{\text{برق}} = T_{\text{جهد}} - q$$

$$R_{\text{جهد}} = \frac{1}{T_{\text{جهد}}} \quad B_{\text{برق}} = \frac{1}{T_{\text{جهد}} - q}$$

$$\frac{1}{T_F} + \frac{1}{T_F - q} = \frac{1}{K} \rightarrow K \cdot T_F - 1 = T_F - q \rightarrow$$

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$$T_F - KqT_F + 1 = 0 \rightarrow T_F = K, T_F = Kq$$

$$T_B = K - q = -\omega \bar{\omega} \bar{g}$$

$$T_B = T_F - q = Kq \rightarrow \mu \eta h$$