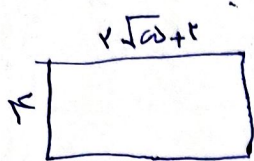


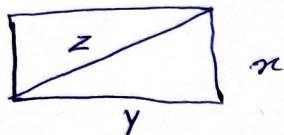
$$S = \omega \times r = 10$$

$$\frac{r \times (2\sqrt{\omega} + 2)}{\frac{r\omega}{\omega}} = \frac{2\sqrt{\omega} + 2}{\omega}$$



$$r \left(\frac{2\sqrt{\omega} + 2}{r} \right) = 2\sqrt{\omega} + 2$$

$$S = r(2\sqrt{\omega} + 2)$$



$$x^r + y^r = \frac{\omega y^r + y^r + 2\sqrt{\omega} y^r}{r}$$

$$\frac{y^r}{x^r}$$

$$r x^r + r y^r = \frac{r}{r} (\omega y^r + y^r + 2\sqrt{\omega} y^r)$$

$$\frac{r}{x^r} = r(y^r + \sqrt{\omega} y^r)$$

$$x^r = y^r(1 + \sqrt{\omega})$$

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

$$\frac{z}{y} = \frac{\sqrt{\omega} + 1}{r}$$

$$z = \frac{\sqrt{\omega} y + y}{r}$$

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

$$\sqrt{x^r + \omega} = r - \omega$$

$$x^r + y^r = r \times$$

$$\frac{r}{\sqrt{}} \checkmark$$

$$x^r + \omega = r + \omega - \omega$$

$$x^r - \omega + \omega = 0$$

$$x^r - \omega + \omega = 0$$

$$(x - \omega)(x - \omega) = 0$$

$$x \pm \frac{\omega}{\sqrt{}} \quad \frac{\omega}{\sqrt{}} \checkmark$$

$$\frac{\frac{r}{\sqrt{}} + 1}{\frac{r}{\sqrt{}}} = 1 + \frac{1}{\sqrt{}} = \frac{q}{r}$$

$$\frac{\sqrt{\omega} + 1 - \sqrt{x^r - 1} - \sqrt{x^r - 1} - \sqrt{\omega} + 1}{q - x + 1} = \frac{-2\sqrt{x^r - 1}}{10 - x} = \sqrt{x - 1}$$

$$\frac{-2\sqrt{x + 1}}{10 - x} = 1 \quad -2\sqrt{x + 1} = 10 - x$$

$$x + \omega = 10 + x^r - \omega x$$

$$x^r - 2\omega x + 9\omega = 0$$

$$\frac{x^r \pm \sqrt{\omega x^r - 4\omega x}}{r} = 1 \pm \sqrt{\omega} \begin{cases} 1 + \sqrt{\omega} \checkmark \\ 1 - \sqrt{\omega} \times \end{cases}$$

$$\frac{x^r - \sqrt{x - \omega}}{r - y + x} = \frac{r - x}{\omega \sqrt{x - \omega}}$$

$$\frac{-2\sqrt{x - \omega}}{r + x} = \frac{r - x}{\omega \sqrt{x - \omega}}$$

$$x - x^r = -\omega + \omega x$$

$$x^r + \omega x - \omega = 0$$

$$(x + \omega)(x - \omega) = 0$$

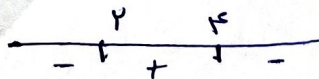
$$x = -\omega \quad x = \omega$$

محل های تقاطع

ω

سوال ۶ و ۷ جابجا نوشته شده است

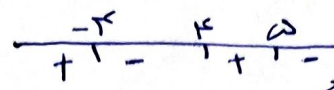
$$-(x^2 - 9x + 1)$$

$$-(x-5)(x-2)$$


$$x(x^2 - 2\omega)$$

$$-x(x^2 - 2\omega)$$

$$(x-x)(x+\omega)(x-\omega)$$



یک جواب $x=2$

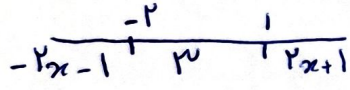
$$\frac{(1-x)^2 + x^2}{x^2(1-x)^2} = \frac{190}{9}$$

$$\frac{-b}{a} = \frac{320}{190} = 2$$

$$9(2x^2 - 2x + 1) = 190(x^2 - 2x^2 + x^2)$$

$$190x^2 - 320x^2 + 190x^2 - 18x^2 + 18x - 9 = 0$$

$$190x^2 - 320x^2 + 18x^2 + 18x - 9 = 0$$



$$y = \frac{14-x}{x}$$

$$14-x = 9x - 1 \quad 14-x = 9 \quad 14-x = 9x + 1$$

$$14x = -13$$

$$1 = x$$

$$15 = 14x$$

$$x = -\frac{13}{14}$$

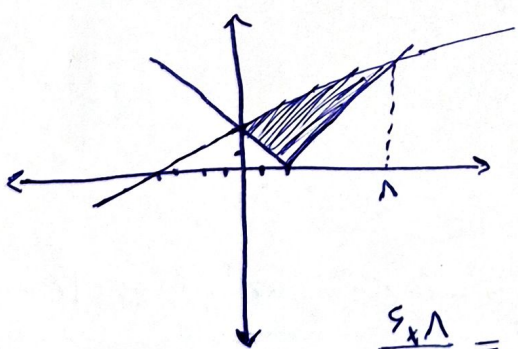
X

$$x = \frac{15}{14}$$

$$\begin{bmatrix} 2 \\ \omega \end{bmatrix} \begin{bmatrix} -x \\ y \end{bmatrix}$$

$$\sqrt{\frac{(14-\omega)^2}{x} \frac{(-x-2)^2}{y}} = \sqrt{10} = 2\sqrt{10}$$

$$\sqrt{x^2 - 9x + 5} = |x-2|$$



$$\frac{1}{x} + 2 = 0$$

$$x = -2$$

$$\frac{1}{x} + 2 = x - 2$$

$$x = 1$$

$$\frac{9 \times 1}{x} = 25$$

$$\frac{9 \times 2}{x} = 9$$

$$25 - 9 = 16$$

$$\frac{1}{x} + \frac{1}{x-9} = \frac{1}{20}$$

$$x^2 - 9x = 20x - 180$$

$$x^2 - 29x + 180 = 0$$

$$(x-20)(x-9) = 0$$

$$x = 20$$

$$x = 9$$

$$20 - 9 = 11$$