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$$\frac{x}{y} = \frac{a}{r} \rightarrow ay = rx, y = \frac{r}{a}x, \frac{x+y}{x} = \frac{a}{r} \rightarrow \frac{x + \frac{r}{a}x}{x} = \frac{a}{r} \rightarrow 1 + \frac{r}{a} = \frac{a}{r} \rightarrow \frac{a+r}{a} = \frac{a}{r} \rightarrow r(a+r) = a^2 \rightarrow ra + r^2 = a^2 \rightarrow r^2 + ra - a^2 = 0$$

$$\Delta = 122, r_1 = \frac{-14 + \sqrt{122}}{2}, r_2 = \frac{-14 - \sqrt{122}}{2}$$

پس $r = \frac{-14 + \sqrt{122}}{2}$

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$$\frac{x}{y} = \frac{a}{r} \rightarrow \frac{x^2}{y^2} = \frac{a^2}{r^2} \rightarrow \frac{x^2}{y^2} = \frac{r^2}{1+r^2} \rightarrow \frac{x^2}{y^2} = \frac{r^2}{1+r^2}$$

$$\frac{\sqrt{x^2+y^2}}{x} = \frac{\sqrt{a^2+1}}{r} \rightarrow \frac{\sqrt{x^2+y^2}}{x} = \frac{\sqrt{a^2+1}}{r} \rightarrow \frac{\sqrt{x^2+y^2}}{x} = \frac{\sqrt{a^2+1}}{r}$$

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$$(\sqrt{ra^2+fa})^2 = (r-4a)^2 \rightarrow ra^2+fa = r^2-8ra+16a^2 \rightarrow ra^2-14a+8r = 0$$

$$\Delta = 122, a_1 = \frac{14+\sqrt{122}}{2}, a_2 = \frac{14-\sqrt{122}}{2}$$

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$$\sqrt{x-1} = t \rightarrow t \geq 0, \sqrt{t+1} \left(\frac{-2\sqrt{t+1}}{2-t+1} \right) = \frac{-(t+1)}{\sqrt{t+1}}$$

$$\rightarrow 2\sqrt{t+1} = t+1 \rightarrow t^2 - 2t + 1 = 0 \rightarrow t = 1 \rightarrow x = 2$$

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$$\sqrt{r-x} = t \rightarrow t \geq 0, \sqrt{r-x} = \sqrt{12} \rightarrow x = -12$$

$$\frac{1}{t+2} - \frac{1}{r-t} = \frac{t^2}{\Delta t} \rightarrow \frac{-rt}{-t^2+2} = \frac{t^2}{\Delta t} \rightarrow -t^2+2 = 0 \rightarrow t = \sqrt{2} \rightarrow x = -12$$

$$\frac{r(n^r - n) + 1}{(n - n^r)^r} = \frac{14}{9} \quad \frac{rt+1}{t^r} = \frac{14}{9}$$

$$\rightarrow t = \dots, r, \frac{-r}{14}$$

$$S_1 = 1 \quad S_r = 1 \quad 1+1=r$$

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$$1) -n^r + r n^r + r n - 1 > 0 \rightarrow n \in [-\infty, -\alpha] \cup [F, \infty)$$

$$n + r n \rightarrow n \in [-r, \alpha]$$

$$r) -n^r + r n - 1 > 0 \rightarrow n \in [r, F]$$

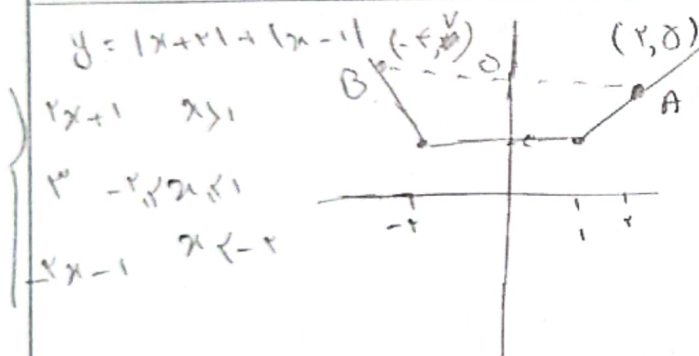
$$r) n + \sqrt{-n^r + r n^r + r n - 1} > 0 \rightarrow n > 0$$

$$\frac{2r}{r} \rightarrow r + F = 4$$

هذا جواب بار

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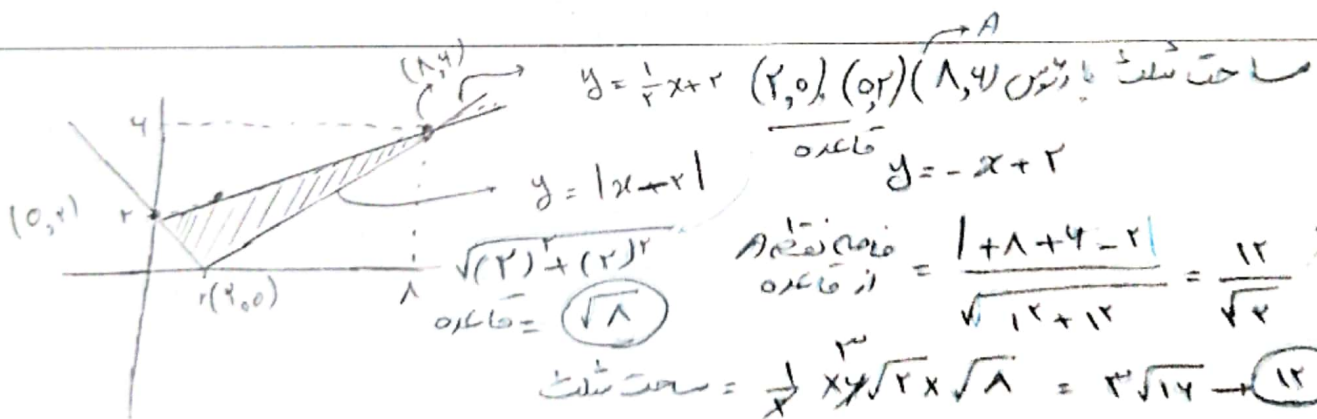
$$F) n^r + \sqrt{-n^r + r n^r + r n - 1} > 0 \rightarrow \text{هذا مشتق}$$



$$\text{المساحة} = \sqrt{(-2-x)^2 + (0-0)^2} = \sqrt{4 + x^2}$$

$$\sqrt{F_0} = r\sqrt{1}$$

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$$\text{المساحة} = \frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2} \times 12 \times 2 = 12$$

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$$\frac{1}{x-9} + \frac{1}{x} = \frac{1}{10}$$

$$10x^2 - 18x + 9 = 0$$

$$10x - 9 = 10x^2 - 18x + 9$$

$$\frac{1}{x-9} + \frac{1}{x} = \frac{1}{10}$$

$$r(u+9) + r \cdot u = u(u+9)$$

$$\rightarrow n^r - r(n-1) = 0 \rightarrow (n+9)(n-r)$$

$$n = r + 9$$

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