

$$f(m) = 1 - \frac{a}{n} \quad [1, \infty) \quad a \neq 0$$

$$n = \pm \sqrt{a}$$

$$\frac{f(r) - f(1)}{r-1} = \frac{1 - \frac{a}{r} - 1 + a}{r-1} = \frac{a}{r}$$

$$f'(m) = \frac{a}{m^2}$$

$$\frac{a}{r} = \frac{a}{m^2} \rightarrow m^2 = r \rightarrow m = \pm \sqrt{r}$$

$$y = r \tan^2 \theta - \delta n + 1 \quad a = ?$$

نقطه بحرانی A

$$a = ?$$

$$r \tan^2 \theta - \delta n + 1 \quad a = n$$

$$r \tan^2 \theta - \delta n + 1 \quad a = 0$$

$$r - 1 \delta \epsilon a^2 = 0 \rightarrow a^2 = \frac{1}{\delta}$$

$$\rightarrow a = \pm \frac{1}{\sqrt{\delta}}$$

$$a = + \frac{1}{\sqrt{\delta}} \quad a = - \frac{1}{\sqrt{\delta}}$$

$$a = - \frac{1}{\sqrt{\delta}} \quad \checkmark$$

$$a = - \frac{1}{\sqrt{\delta}}$$

$$y = n^2 - 1 \quad n + r \rightarrow y' = 2n - 1 = 0 \quad (n^2 - \epsilon) = 0 \quad (n - r)(n + r)$$

$$n^2 - 1 \quad (r) + r = 1 - \epsilon + r = -1 \quad -1 \quad \checkmark$$



$$y = n^2 + a n^2 - \delta b n - \epsilon \quad \text{نقطه بحرانی}$$

$$2n + 2a n - \delta b \rightarrow n = 0 \rightarrow y = 0 \rightarrow b = 0$$

$$2n + 2a n \rightarrow n = -r \rightarrow y = 0 \rightarrow 1 - \delta a = 0 \rightarrow a = r$$

$$y = n^2 + 2n^2 - \epsilon \rightarrow y(0) = -\epsilon \rightarrow (0, -\epsilon) \quad y(-r) = 0 \rightarrow (-r, 0)$$

$$d = \sqrt{\epsilon} = r \sqrt{\delta}$$

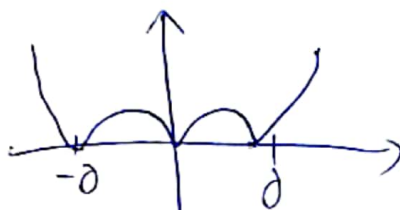
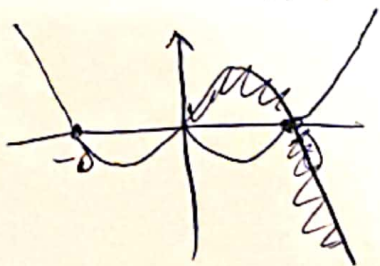
$$r \sqrt{\delta}$$

$$f(m) = n^2 - \delta |m|$$

$m \rightarrow \max$
 $n \rightarrow \min$

$$y = |f(m)|$$

$$\frac{n}{m} = ?$$



$$n = r$$

$$1/\delta$$

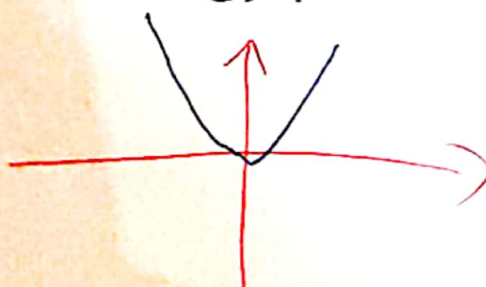
$$\frac{r}{\sqrt{\delta}} = 1/\delta$$

$$y = |f(m)| \quad f(m) = n(|m| + \epsilon)$$

$$n^2 + \epsilon n \quad n \geq 0$$

$$n^2 - \epsilon n \quad n < 0$$

نقطه بحرانی = ?



نقطه بحرانی

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$$y = \frac{m^2 + 5}{n - 1 + m} \quad \text{زیر } (1, +\infty)$$

$$\frac{m^2 - m - 5}{(n - 1 + m)^2} \rightarrow m^2 - m - 5 \leq 0 \quad (9)$$

$$1 \leq m \leq 5$$

$$m \neq 5 \rightarrow m = -1, 0, 1$$

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دانشگاه بیرجند

بریا جانفرا