

1.83
75

$$f(x) = 5^{-2x} - \frac{17}{12} a 5^{-x} + \frac{a^2}{2} - 1$$

$$f(x) = t^2 - \frac{17a}{12} t + \frac{a^2}{2} - 1$$

$$5^{-x} = t \quad | \text{מס} /$$

$$-1 < f(x)$$

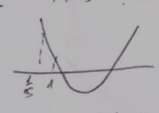
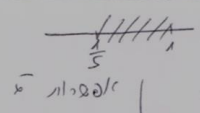
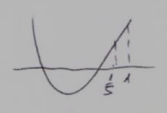
$$0 \leq x \leq 1 \quad \text{מס} /$$

$$\left(\frac{1}{5}\right)^0 \geq \left(\frac{1}{5}\right)^x \geq \left(\frac{1}{5}\right)^1$$

$$1 \geq t \geq \frac{1}{5}$$

t על המנייה
הבסיס הוא 5
כיוון ההולכה מתהפך

$$-1 < t^2 - \frac{17a}{12} t + \frac{a^2}{2} - 1 \rightarrow 0 < t^2 - \frac{17a}{12} t + \frac{a^2}{2}$$



$a \neq 0 \leftarrow \Delta > 0$

$0 < f(1) \rightarrow a > \frac{3}{2}, a < \frac{4}{3}$

$0 < f(\frac{1}{5}) \rightarrow a < \frac{4}{15}, a > \frac{3}{10}$

$\frac{1}{5} > -\frac{b}{2a} = \frac{17a}{24} \rightarrow \frac{24}{85} > a$

$a < \frac{4}{15}$: אפשר

$0 \neq a \quad b < -\frac{\Delta}{2a}$

$0 < f(\frac{1}{5}) = \frac{1}{25} - \frac{17a}{60} + \frac{a^2}{2}$

$0 < \frac{12 - 85a + 150a^2}{300}$

$0 < f(1) = 1 - \frac{17a}{12} + \frac{a^2}{2}$

$0 < 6a^2 - 17a + 12$

$1 < -\frac{b}{2a} = \frac{17a}{24} \rightarrow a > \frac{24}{17}$

$a > \frac{3}{2}$ אפשר

$\Delta < 0$ אפשר

$\frac{289a^2}{144} - 2a^2 < 0$

$\frac{a^2}{144} < 0$

אפשר $0 = a$ אבל

$f(x) = t^2 - 1$

אפשר $\frac{1}{5} < t \leq 1$ מס' /

$-1 < f(x)$

$a=0, a < \frac{4}{15}, a > \frac{3}{2}$ איך המשוואה נפתרת