$$\sqrt{x} + \frac{1}{\sqrt{x}} < 4$$

$$x^{1/2} + x^{-1/2} < 4$$

$$(x^{1/2} + x^{-1/2})^2 < 4^2$$

$$(x^{1/2} + x^{-1/2})(x^{1/2} + x^{-1/2}) < 16$$

$$x^1 + 1 + 1 + x^{-1} < 16$$

$$x + 2 + x^{-1} < 16$$

$$x - 14x + x^{-1} < 0$$

$$x^2 - 14x + 1 < 0$$

Quad formula

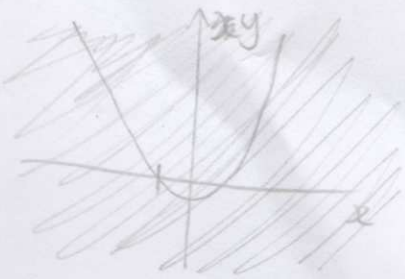
$$\frac{14 \pm \sqrt{-14^2 - 4(1)(1)}}{2(1)} \quad [=x]$$

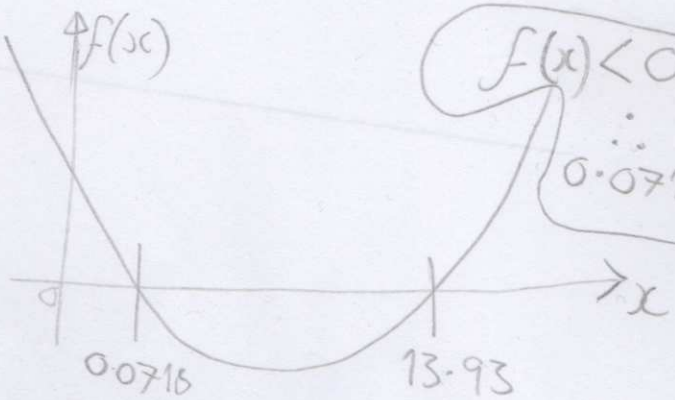
$$\frac{14 \pm \sqrt{192}}{2}$$

$$\frac{14 \pm 13.856}{2} \quad [=x]$$

$x = 13.93, 0.0718$

$f(x) = x^2 - 14x + 1$





$f(x) < 0$

$0.0718 < x < 13$