1.67
3

$$3x\log_{\sqrt{x}}3\cdot\log_{81}x<4+\sqrt{x}$$

$$3x\cdot 2(\log_x 3)\cdot\frac{1}{4}\log_3 x<4+\sqrt{x}$$

$$3x\cdot\frac{1}{2}\cdot\frac{\log 3}{\log x}\cdot\frac{\log x}{\log 3}<4+\sqrt{x}$$

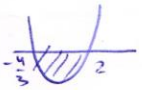
$$1.5x<4+\sqrt{x}$$

נסמן $\sqrt{x}=t$

$$1.5t^2-t-4<0$$

$t=2$

$t=-\frac{4}{3}$



$$-\frac{4}{3}<t<2$$

$$-\frac{4}{3}<\sqrt{x}<2 \quad\leftarrow\quad 0<\sqrt{x}<2$$

$$0<x<4$$

תנאי הגדרה: $0<x\neq 1$ לכן $0<x<4$, $x\neq 1$