1.53
1

$2\log^3 x - 1.5\log x > \sqrt{10} \quad / \log_{10}$

תנאי הגדרה
$x > 0$

$(2\log^3 x - 1.5\log x)\log x > \log\sqrt{10} = \frac{1}{2}\log 10 = \frac{1}{2}$

נסמן $\log x = t$

$(2t^3 - 1.5t)t > \frac{1}{2} \quad / \cdot 2$

$t^2 = A$

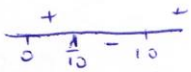
$4t^4 - 3t^2 - 1 > 0$

$4A^2 - 3A - 1 > 0$

$A = t^2 = -\frac{1}{4} \to \emptyset$

$A = t^2 = 1 \to t = \pm 1$

$\log x = \pm 1 \to x = 10, \frac{1}{10}$



$x > 10$

$0 < x < \frac{1}{10}$

פתרון: