

1.117
23

$$5^{\log x} - 3^{\log x} \leq \frac{16}{3} \cdot 3^{\log x} \cdot 5^{-0.5(2-\log x)}$$

$$5^{\log x} - 3^{\log x} \leq \frac{16}{3} 3^{\log x} \cdot 5^{-1} \cdot 5^{0.5 \log x}$$

$$A = \frac{8}{3} 3^{\log x} \quad | \cdot 10 |$$

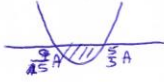
$$B = 5^{0.5 \log x}$$

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x > 0

$$B^2 - A^2 \leq \frac{16}{3} \cdot A \cdot \frac{1}{5} B$$

$$B^2 - A^2 \leq \frac{16}{15} AB \quad | \cdot 15$$

$$15B^2 - 16AB - 15A^2 \leq 0$$



$$-\frac{3}{5} A < B < \frac{5}{3} A$$

$$-\frac{3}{5} \cdot 3^{0.5 \log x} \leq 5^{0.5 \log x} < \frac{5}{3} \cdot 3^{0.5 \log x}$$

$$-3^{1+0.5 \log x} \leq 5^{1+0.5 \log x} < 5^{1+0.5 \log x}$$

8.

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x (21 112)

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$$5^{0.5 \log x} \leq \frac{5}{3} \cdot 3^{0.5 \log x}$$

$$5^{0.5 \log x - 1} \leq 3^{0.5 \log x - 1}$$

$$\left(\frac{5}{3}\right)^{0.5 \log x - 1} \leq 1 = \left(\frac{5}{3}\right)^0$$

$$0.5 \log x - 1 \leq 0$$

$$\log x \leq 2$$

x ≤ 100

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x (21 112)

$$10 < x \leq 100 \quad \text{p b'ior}$$