

1.4  
2

$$16 \cdot 5^{2x} - 4^x < 5 \cdot 2^{2x} + 25^x$$

$$16 \cdot 5^{2x} - 2^{2x} < 5 \cdot 2^{2x} + 5^{2x}$$

$$15 \cdot 5^{2x} < 6 \cdot 2^{2x} \quad /: 3$$

$$5 \cdot 5^{2x} < 2 \cdot 2^{2x}$$

$$5^{2x+1} < 2^{2x+1} \quad /: 2^{2x+1}$$

$$1 > \left(\frac{5}{2}\right)^{2x+1} \rightarrow \begin{array}{l} 2x+1 < 0 \\ \boxed{x < -\frac{1}{2}} \end{array}$$