

Practice Problems

$$1) \quad f(n) = n - 10 \quad g(n) = n + 10$$
$$f(n) = \Theta(g(n))$$

$$2) \quad f(n) = n \quad g(n) = n$$
$$f(n) = \Theta(g(n))$$

$$3) \quad 64^{\log_2 n} \cdot 32^{\log_2 n} = O(n^5)$$

$$4) \quad \frac{4^n}{2^n} = O(2^n)$$

$$5) \quad 128^{\log_2 n} \cdot n^2 = \Theta(n^9)$$