

Q2

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7:05 PM

a)

Greatest Order of growth

$$2^{2^{n+1}}$$

$$2^{2^n}$$

$$(n+1)!$$

$$n!$$

$$e^n$$

$$n \cdot 2^n$$

$$(\lg n)^{\lg n} \text{ and } n^{\lg n}$$

$$(\lg n)!$$

$$n^3$$

$$n^2 \text{ and } 4^{\lg n}$$

$$n \lg n \text{ and } \lg(n!)$$

$$2^{\lg n} \text{ and } n$$

$$(\sqrt{2})^{\lg n}$$

$$\lg^2(n)$$

$$\ln(n)$$

$$\sqrt{\lg n}$$

$$\ln(\ln(n))$$

$$2^{\lg \lg n}$$

$$\lg \lg n \text{ and } \lg(\lg n)$$

$$\lg(\lg \lg n)$$

least order of growth

$$n^{1/\lg n} \text{ and } 1$$