Extra Assignments ADS I

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1 Big-Oh Notation

Find the dominant term and the TIGHT O for the following equations:

$$x + 10000000000 \tag{1}$$

$$n + 2n^2 + 3n^3 \tag{2}$$

$$2^n + 5n^2 + 1000 \tag{3}$$

$$\frac{n(n+1)}{2} + n^2 \tag{4}$$

$$2n^3 + \frac{3n(n+1)}{2} + 100n \tag{5}$$

$$n! + n^2 + 10^n \tag{6}$$

$$2^n + (n)! \tag{7}$$

$$n^2 + 2^n \tag{8}$$

$$10n^3 + 1000n^2 + 10000n \tag{9}$$

$$2^n + n^3 \tag{10}$$