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Computer Science 302

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TQ – C10

**True / False**

**Q:**  Big O can be summarized as “Algorithm A is order f(n) if constants k and n0 exist such that A requires no more than k\*f(n) time unit to solve a problem of size n >= n0.

**A:** True

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**Multiple Choice**

**Q:** Which of these is the fastest order of magnitude?  
A. O(log2(N))  
B. O(N)  
C. (O(N^2)  
D. O(N^3)  
E. O(2^N)

**A:** A. O(log2(N))

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**Fill in the Blank**

**Q:** A solution is good if the total cost it incurs over all phases of life is \_.

**A:** Minimal

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**Short Answer**

**Q:** What are 3 fundamental problems of comparing programs instead of algorithms?

**A:** 1. How are the algorithms of the program coded?  
2. What computer should you compare the programs on?  
3. What data should the program use?

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