Problem Set 2: Hardware and Software

due Wednesday, 13 October 2008, by 7:35 P.M. ET

To submit this problem set, email psets@computerscience1.org with your answers
in the body of the email itself or attached as a .doc, .pdf, or .rtf.

Gene's Picks.

1. *Pirates of Silicon Valley:* thumb's up or thumb's down? In a short paragraph, why? In another short paragraph, what did you learn from the film?

2. In one scene, Steve Jobs walks in on an interview with a professional looking applicant who wants a job with Apple. While the applicant's resume is impressive, Jobs disliked him. Why? What difference do the applicant's background or character make in today's tech industry? Should they make a difference? Why? One or more short paragraphs in total suffice.

The First Thing To Go Is Memory.

3. As you furiously type the answers to this problem set the night before it's due, you decide to procrastinate, and so you start watching some videos on YouTube. But you soon become distracted and decide to simultaneously check your email, chat on an instant messaging program, and buy a book on Amazon. All of a sudden you receive the following error message: "Your system is low on virtual memory." What is virtual memory? What might this error message mean? Suggest two ways to solve this problem.

Email ASAP.

4. Your mother is tired of calling you and decides to remedy the situation by purchasing a top-of-the-line computer for the sole purpose of sending you daily emails with new photos of her cat. She decides to purchase a computer with specifications identical to yours except that it has a 2GHz dual-core CPU instead of your 2GHz single-core CPU. She boasts that her machine is twice as fast as yours. Is she correct? Why or why not? Explain when dual cores might be beneficial.

Extra Credit.

5. Who is Linus Torvalds?