

Exercise 4

Due at 3:30 PM (on paper), March 26, 2009.

1. **(20 pts)** Ex. 7.19, p. 401. Hint: Due to alignment constraints, there is padding between array elements. Show your work.
2. **(10 pts)** Ex. 7.28, parts a and b, p.403.
3. **(20 pts)** Ex. 6.14, p. 300. Note: The figure is on p. 281.
4. **(20 pts)** Ex. 6.22, p. 301. Write your alternative in Java. Contrast it with Rubin's code in a well-written paragraph. Which is has fewer LOC (lines of code)? Which is more intuitive?
5. **(30 pts)** Write a well-written argument about a programming language construct that you consider harmful. In what situations does it lead to logic errors or poor code quality? Are there viable alternatives to that construct in the language? If so, do they cover all cases? If not, what additions or modifications would you make to a language to replace the offending construct? Give examples to illustrate your points. (Put some effort into this if you want full credit!)