THE OBJECT -- Solve all four chess problems. Don't worry if you have never solved chess problems before. All you need to know to solve these problems are the rules of chess and a lot of logic.

PRIZES -- First prize is $30.
Second prize is $20.

HOW TO WIN -- Give your complete solution to Brad Schaefer (Rm 37-576, Westgate #1005, 253-7554, 494-0263, or at the Chess Club meeting on Saturday). A complete solution must list the main variations in all four problems.

OTHER RULES -- Any member of the M.I.T.-Wellesley community is eligible to receive a prize. Any number of people can work together as a team. Brad Schaefer is the final authority in any dispute. The problems were chosen with the help of Prof. R. Stanley and P. Kenny.

PROBLEM #1. White to move and mate in two.
What move should white make such that after any reply by black that white has a mate on the move?

PROBLEM #2. White to play and win.
In this position, what move should white make to guarantee a win?

PROBLEM #3. In a legal game of chess, black plays ... 0-0-0. (castles queenside). What was captured at e3 (three squares in front of the white king's initial position)? This type of problem is called retrograde analysis. You are to use the present board position to deduce what has happened earlier in the game (no matter how crazy it may be).

PROBLEM #4. White to move and mate in six.