Kanga and Roo decided to have a race. Kanga jumps 8 feet with every jump and makes one jump every 4 seconds. Roo, on the other hand, jumps twice as fast (one jump every 2 seconds) but jumps only 4 feet with each jump. The racecourse was 100 feet long, with the race being up and back. (So that’s 200 feet total.) Who won and by how far?

**10 points**

5 points for detailed solution (drawing and/or list), 3 points for a summary of your approach, 2 points for final answer \*please circle\* (who won and by how much).

Yale Record Club made me an offer I couldn’t refuse. For their low prices I could buy millions of records, tapes, and compact discs (CDs) and save millions of dollars. Well, anyway, I joined. The first month I bought 3 CDs, and the cost was $24.84. The second month I ordered 5 for a total of $38.82. Did I mention that the cost covered the CDs and the shipping and handling? Anyway, for $31.83 I bought 4 CDs the next month. I paid $17.85 for 2 discs the next month. I looked through their catalog and picked out 38 more CDs that I wanted to buy sometime. If I buy all 38 at once, then I pay the shipping and handling fee only once. On the other hand, if I buy them in smaller groups, well . . . What I really need to know is, how much would it cost to buy all 38 CDs as one order?

**10 points**

5 points for detailed solution (drawing and/or list), 3 points for a summary of your approach, 2 points for final answer \*please circle\* (how much are 38 CDs all at once).