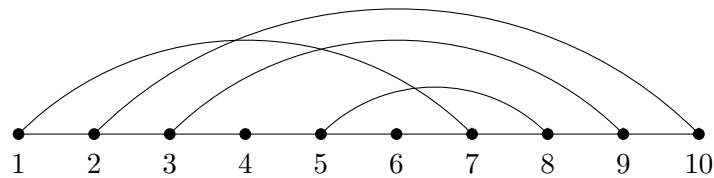# MthSc 985: Topics in Discrete Mathematical Biology (Fall 2011)
Quiz 6 (20 points)

NAME:

Instructions: Answer each of the following questions completely. If something is unclear, or if you have any questions, then please ask. Good luck!

1. (2 points) Sketch the *core* and the *shape* of the following structure:

2. (2 points) Define a *hairpin loop* and *interior loop* purely combinatorially. That is, use the terminology of arcs (i, j) and sequences $[k, \ell]$ of isolated vertices.

3. (6 points) How many 3-noncrossing, 2-canonical structures on 18 vertices have the following core? Justify your answer.