Dynamic Nim For each of the following positions, find a winning move if there is one, and state otherwise if there is not one. Recall that, for example, $(75, 20)$ refers to the position with 75 counters and maximum move of size 20.

Identity Nim In all five games below, you're playing $N_i(k)$, that is, one pile dynamic identity nim in which each move must be no bigger than the previous move.

1. $(174, 30)$

2. $(284, 60)$

3. $(464, 80)$

4. $(374, 20)$

5. $(184, 10)$

Doubling Nim In all five games below, you're playing $N_d(k)$, that is, one pile dynamic doubling nim in which each move must be no bigger than twice previous move.

1. $(267, 30)$

2. $(284, 60)$

3. $(464, 80)$

4. $(374, 20)$

5. $(184, 10)$