

## Choosing the Canadian Olympic Figure Skating Team

### ***The problem***

You wish to maximize the possibility that the Canadians come home with gold in all four figure skating events (men's, ladies', pair's, and ice dancing) at the Vancouver 2010 Winter Olympics. You want to consider every skater/team that has competed at the senior level of the Canadian Championships in the past so many years (scalable).

Two men, three ladies, one pair, and two ice dance teams must be chosen.

### ***Available Data***

- Placement in the Canadian Championships
- Placement in International competitions
- Previous Olympic experience
- Number of years of senior level experience
- In the case of pairs and dance, number of years with current partner
- Average scores
- Quantitative improvement in the last year
- Recent injuries and how much practice time lost
- Schedule of events at the 2010 Olympics

### ***Considerations***

Some of the available data is more important than others. In the past it is the top skaters at the most recent Canadian Championships who are chosen for the team unless there are strong reasons against it. We don't want to shake too much from this foundation but realize that it is not necessarily going to give us the top set of skaters.

It is possible that a pairs or ice dancing skater has competed with multiple partners in the years considered. In this case, only the most recent partnership should be evaluated.

It is possible that a skater participates in multiple events (for example, men's and pair's). In this case, the schedule of events should be taken into consideration.