Assignment #6
Due on Friday, 3 April, 2009.

A simple game?

Division Nim is played as follows[1]:

> Two players each write down an even number, these numbers are added to give a starting number for the game. In turn each player divides the last number obtained by one of its divisors (excluding '1'). The first player to reach '1' is the loser. Thus a game might run as follows:

> *A* chooses 8, *B* chooses 16 so the game starts with 24.

A divides by 2	12
B divides by 3	4
A divides by 2	2
B divides by 2	1 (and *B* loses).

1. How is this game related to the game Nim discussed in class (and on pages 36-38 in the text)? *[5]*

2. If *A* chooses 210 and *B* chooses 150, so that the game starts with 360, who should win, assuming best play by both players? Why? *[5]*

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[1] The description is taken from *What's Your Game?* by Michael Cornelius & Alan Parr, Cambridge University Press, 1991, p. 34.