



Let us try to predict, whether Russel Crowe will win an Oscar for "A Beautiful Mind" on March 24.

At the official 74'th academy awards nominations for 2001, Crow was nominated for best actor.

Last year, for the year 2000, Crowe was nominated for the best actor for "Gladiator" and won the nomination. He also got a Golden Globe and SAG award nomination.

In 1999 Crowe got nominated for "The Insider".

Let us make a very simplistic prediction for 2001. The example is a prototype of how **not** to use statistics. It is chosen in such a way that it can be solved during a 10 minute inclass exercise.

We give 1 point for a nomination and 2 points for an award so that the data are (1998,0), (1999,1),(2000,3).

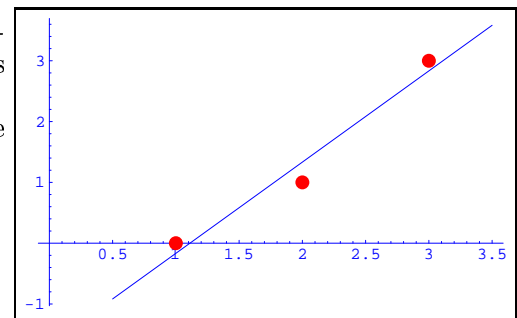
To make a prediction for (2001), we assume a linear formula $rx + s = y$ relating year x with with award points y . To make things easier, we take 1997 as the coordinate origin.

Mathematically, we want to find the best linear fit through the points (1, 0), (2, 1), (3, 3).

$$1r + 1s = 0$$

$$2r + 1s = 1$$

$$3r + 1s = 3$$



$\vec{x} = (r, s)$. The best solution \vec{x}^* to $A\vec{x} = \vec{b}$. is $\vec{x}^* = (A^T A)^{-1} A^T \vec{b}$.

Write down A , A^T .

What is \vec{b} ?

Find $(A^T A)$.

Compute $\vec{x}^* = [r, s]^T = (A^T A)^{-1} A^T \vec{b}$

What line $rx + s$ fits best the data?



Will Crowe win the Oscar nomination in two weeks?