

Special Problem 3I

20th Century Fox Movies and Budget

Budgets and worldwide grosses of 30 movies distributed by 20th Century Fox are given. Is it true that more money spent on a movie will gross more money?

Task. Your assignment is to do whatever you need to investigate this data set and then write a brief article for the newspaper describing your findings and conclusions. Be sure to include in your article: a statement of the problem, the data, and any plots or graphs you construct. Be sure to discuss patterns and trends but also be sure to explain any deviations to the patterns. As part of the assignment, the education editor wants you to predict the worldwide gross for *Night at the Museum: Battle of the Smithsonian* with a budget of \$150 million and the new movie *Avatar* with a budget of \$237 million. Compare your results to the actual worldwide gross.

Mode. You may work on this assignment individually, or you may work with one partner (not more than one) in the class.

Report. Try to keep graphs and your commentaries about these graphs together on the same page, if possible, so the reader won't have to flip back and forth when reading your report. If you worked with a partner on this Special Problem, then both must contribute equally, and both names must appear on the article. When you write your article, assume that your readers will be reasonably intelligent, but they may not be as statistically literate as you. If you use any technical terms, you may want to briefly explain these terms as part of your story.

Grading. The score awarded for this Special Problem will depend on the quality of your analyses, the clarity of your explanations, the appropriateness of your conclusions, and whether you adhered to the general guidelines for Special Problems.

Deadline. Special Problem 3I is due on _____.

Movie	Budget (in millions of dollars)	Worldwide Gross (in millions of dollars)
Titanic	200	1835.4
X-Men: The Last Stand	150	459.4
Master and Commander	135	209.5
The Day After Tomorrow	125	544.3
X2	125	407.7
Star Wars: Episode I	115	924.3
Star Wars: Episode II	115	656.7
Star Wars: Episode III	115	848.5
Night at the Museum	110	574.5
Kingdom of Heaven	110	211.4
Speed II: Cruise Control	110	150.5
I, Robot	105	348.8
Minority Report	102	358.8
True Lies	100	365.3
Planet of the Apes	100	359.1
Eragon	100	249
Die Hard: With Vengeance	90	365
Fantastic Four	87.5	329.5
Castaway	85	427.2
Robots	80	260.7
Daredevil	80	179.1
The League of Extraordinary Gentlemen	78	179.3
Ice Age: The Meltdown	75	651.9
Independence Day	75	817.4
Titan A. E.	75	36.8
Flight of the Phoenix	72	34
Ice Age: The Meltdown	65	383.3
Meet Dave	60	50.7
The Happening	60	163.4
Fat Albert	45	48.5