

Harry Potter Teacher Guide

This is an open activity that allows students to come up with their own definition of a movie's success or lack of success. Students may use opening weekend gross, U.S. gross, worldwide gross or profit (the difference between worldwide gross and budget).

Older students might also consider that dollars in 2001 are not worth the same as present day dollars. Students might adjust past dollar amounts for inflation. This will allow them to make comparisons between the movies using 2011 U.S. dollars (or any year). Students might realize that they may not need to adjust all eight of the movies for inflation.

To calculate rates of inflation use the site: <http://www.usinflationcalculator.com/> which allows you to find the rate of inflation between any year and 2012. Students in algebra classes or beyond may write a general exponential equation with an inflation rate of about 2% a year (you may find a more accurate inflation rate from 2001 to 2011 in your research).

Some students might also define success of a movie based off the number of tickets sold. We have included a list of the average U.S. ticket price below and to find the average U.S. movie ticket price for any year visit the link below:
<http://www.natoonline.org/statisticstickets.htm>

Average U.S. Ticket Prices

Year	Price
2010	\$7.89
2009	7.50
2008	7.18
2007	6.88
2006	6.55
2005	6.41
2004	6.21
2003	6.03
2002	5.80
2001	5.65

This will not give a precise solution, but should give a good estimate of the number of tickets sold for any of the eight movies.

No matter what grade level you are working with and what sophistication is reached, the same process can be implemented when using this activity:

The typical Harry Potter budget problem is also purposely left open. Depending on what students already know about measures of central tendency, they may use the mean, median, mode or a combination of all three to arrive at a number.

1. The task is introduced by the teacher. A whole class discussion on ideas of how to define most successful movie or strategies for finding the most successful movie could take place. The point here is for students to get thinking about the problem and different ideas for solving it, not to have all students do the same math or method.
2. Students work in groups on the task. Different groups may define success in different ways and go about solving the problems using many different strategies. The teacher should circulate around the room, helping students and taking note of how each group is going about the problem.
3. The teacher should select two or more groups who either had different solutions or different methods to present their findings. Students might communicate their reasoning through chart paper, a poster, on an overhead or simply showing their work on a document camera. The focus here should be on the student thinking and process, not on the answer.

Extensions:

1. You might also ask students to consider if based off the data if a higher production budget translates to greater earnings.
2. Which movie had the greatest percentage of foreign audience? The least?
3. Make graphs of any of this data. Which type of graph makes the most sense to use to communicate the data?

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