

## PreCalculus Final Project 2014: Math Goes to the Movies

Math topics show up in movies and television shows. An educated audience will understand the math behind the scene. Pick a clip from a school appropriate movie or TV show and explain the math behind the scene. Go deeper than the scene. Everyone must pick a different topic and sign up. First one signed up wins!

All presentations will include: Why is the topic included in the show? Thorough explanation of the math topic, going beyond the given information in the scene. Any historical background on the topic. What the topic is used for? How is the math computed or derived or used or related to other math topics? Document your bibliography in your paper to show that you researched your math topic beyond the information provided in the scene.



### General Sources

Math in the Movies <http://www.math.harvard.edu/~knill/mathmovies/>

The Mathematical Movie Database - <http://www.qedcat.com/moviemath/index.html>

Links to YouTube clips - <http://www.qedcat.com/movieclips/index.html>

The Math in the Movies Page - <http://world.std.com/~reinhold/mathmovies.html>

Numb3rs: Math topics used in the show, listed alphabetically, links to more information, left panel lists episode with math topic: <http://www.redhawke.org/content/view/308/82/>

*The Simpsons* has lots of math references: [http://homepage.smc.edu/nestler\\_andrew/SimpsonsMath.htm](http://homepage.smc.edu/nestler_andrew/SimpsonsMath.htm)

### Your task

- I. At the beginning of your presentation, hand in a 1 – 2 page summary paper that includes a bibliography.
- II. Present an oral presentation to the class (10 – 15 minutes.) Tell us about why the topic is included in the show. Include a thorough explanation of the math topic, going beyond the given information in the scene. Any historical background on the topic. What the topic is used for? How is the math computed or derived or used or related to other math topics?
- III. Make sure you use a Power Point or similar presentation for your topic. Be sure to use the rubric as a checklist to prepare your presentation.

Precalculus Final Project 2014

Name \_\_\_\_\_

Score \_\_\_\_\_

Topic

0	-	√-	√	√+	+
Not done	Below standard on a major point or a major mistake	Below standard on a minor point or a small mistake	Meets standard, all areas correctly performed	Above standard on a minor point or in small way	Above standard on a major point or in an impressive way
-10	-7	-4	0	+3	+5

Criteria	
Topic: Topic chosen is about math is a scene from a movie or TV show which is appropriate for classroom viewing	
Research on mathematical topic: explain more than the mathematics shown in the clip	
Quality visual aid(s): shows time, effort and creativity, clip should be less than 5 minutes	
Vocabulary use: correct terminology (new vocab is a plus)	
Complexity: you should demonstrate that you learned something new about mathematics (MS math is a minus, HS math is a check, something we've never done in HS is a plus)	
Mathematics: you need to explain/discuss the mathematics that is involved in your topic. What is it used for? How is it computed/derived? Are there relationships with other math topics?	
Expertise: learn enough about your topic to answer questions from an ignorant audience (your classmates and me), especially be able to answer questions from your classmates.	
Class Presentation: organized, clear, interesting voice and manner	
Originality: everyone must choose a different topic or a different aspect of a topic	
Paper: neat, clear summary with details as needed, watch spelling! Accurate <b>list of sources</b> .	
Timeliness: you will lose points if you are not prepared or absent for your scheduled presentation (-10 points) Learning from others: attendance (missed class -5 points/ -10 points for the double period class)	

95 is the baseline score—met the standard in each category. If you want a higher score, be prepared to impress me!