Peter

TRIS Math Meet 2017

21st April Presentation Questions

Grade Level 6-7

Questions

1. Which display allows you to show the complete data shown in the data sheet? Justify your reasoning.
2. Your display should be able to compare income for these movies against ratings that they belong to.
3. Which ratings earns the maximum income? PG13
4. Which ratings earns the most profit per ticket? (This is not the same as income) ~~PG13~~ G 6.9
5. Make a prediction based on your graph how much top movie will earn in 2017 based on:
   a. Maximum income more than
   b. Maximum profit 2877000000

If any data is taken from an outside source, please credit it on the slide. Eg: Credits: www.disney.com

TRIS Math Meet 2017, 21st April

Group Name:

Group Leader:

Members:

Welcome to Math Meet 2017 where you analyze how the movies and public performance rating system works and how you can explain this to your friends using statistical analysis.

Framework:
Your group will present to the audience of your grade level how the rating system has been analysed by you in 3 minutes, your competitive groups will then ask you questions based on either the rating system or your graphical display.

Please read carefully the given handout to the project question. Then prepare at least 1 graphical display. This can be **a bar graph, a line graph, a histogram, a pie chart, a box-and-whisker, scatter plot or a stemplot (stem-and-leaf).** State reasons on the next slide why you chose that particular display and why it explains the tables given in the project handout better than your competitors. Information regarding each type of display and its use is given at the end. You must use this and any other supporting information to support your presentation.

Rubric for presentation

S. No.	Activity	Points earned
1	Presentation for 3 minutes	+25
2	Answering Q&A logically	+5 per question
3	Asking mathematical reasoning questions to other groups	+3 per question
4	Turn-in your presentation to your Math Teacher by 15:00 on 20th April	+5

You will get points for asking analytical and reasoning questions when your competitors are presenting during their Q&A after permission from the judges.

The presentation should have a minimum of 4 slides. You can have as many as you would like. Please make sure that texts and graphs are clearly visible to the audience in the auditorium. Make sure the background and font colors are contrasting. You may follow the format below:

Slide 1: Team name, members name and grade level
Slide 2: Graphical display (Neatly labelled with axis and header) Min 1 Max 3
Slide 3: Reasoning for the graphical display (Bullet points ONLY)
Slide 4: What did your group learn from researching about the rating system? (Bullet points ONLY)
Exceeding 3 minutes = - 2 per minute

This is a competition and only 1 group can win so make sure you put on your thinking caps!!

Statistical Displays

Bar Graph

- The bars in a graph compare different pieces of data.
- It can also be used to show the number of items in specific categories.

Line Graph

- It is useful to show changes over a period of time.

Line Plot

- It emphasizes patterns in the way the data is distributed.
- It is useful to show how many times each number occurs.

Top Movie of Each Year

Year	Movie	MPAARating	Total for Year	Total in 2012 dollars	Tickets Sold
1995	Batman Forever	PG-13	$184,031,112	$336,755,776	42,306,002
1996	Independence Day	PG-13	$306,169,255	$551,381,734	69,269,062
1997	Men in Black	PG-13	$250,650,052	$434,678,518	54,607,854
1998	Titanic	PG-13	$443,319,081	$752,413,619	94,524,324
1999	Star Wars Ep. I: The Phantom Menace	PG	$430,443,350	$674,474,218	84,732,942
2000	How the Grinch Stole Christmas	PG	$253,367,455	$374,175,306	47,006,948
2001	Harry Potter and the Sorcerer's Stone	PG	$300,404,434	$422,476,904	53,074,988
2002	Spider-Man	PG-13	$403,706,375	$553,098,578	69,484,746
2003	Finding Nemo	G	$339,714,367	$448,445,497	56,337,374
2004	Shrek 2	PG	$441,226,247	$565,565,363	71,050,925
2005	Star Wars Ep. III: Revenge of the Sith	PG-13	$380,270,577	$472,223,673	59,324,582
2006	Pirates of the Caribbean: Dead Man's Chest	PG-13	$423,315,812	$514,441,809	64,628,368
2007	Spider-Man 3	PG-13	$336,530,303	$389,357,732	48,914,288
2008	The Dark Knight	PG-13	$531,001,578	$588,686,990	73,955,652
2009	Transformers: Revenge of the Fallen	PG-13	$402,111,870	$426,774,731	53,614,916
2010	Toy Story 3	G	$415,004,880	$418,686,798	52,598,844
2011	Harry Potter and the Deathly Hallows: Part II	PG-13	$381,011,219	$382,452,624	48,046,812
2012	The Avengers	PG-13	$623,279,547	$623,279,542	78,301,450
2013	Iron Man 3	PG-13	$408,992,272	$400,440,154	50,306,552
2014	Guardians of the Galaxy	PG-13	$333,055,258	$324,494,471	40,765,637
2015	Star Wars Ep. VII: The Force Awakens	PG-13	$742,208,942	$700,828,369	88,043,765
2016	Finding Dory	PG	$486,295,561	$459,182,996	57,686,306
2017	Beauty and the Beast	PG	$446,110,751	$446,110,751	52,919,424