

# BATTLE OF THE 80S NUMBER 1 HITS

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## Which song was the bigger hit?

You will get to choose 4 songs from the 1980s. You may know your songs or you may not have heard your songs – you can pick whatever you choose. Then you will compare your 4 songs using several statistics to determine which one was the bigger 1980s hit.

**You want to create an organized, well thought-out, display of all information below.  
Make it easy for the reader to understand all your data.**

1. Choose your 4 songs based on the criteria on the song page.
2. For each of your songs, Mr. Mangham will provide you with how that tune performed while in the Top 40.
3. With this information determine and create the following in **THE CHARTS** section:

### **SECTION 1**

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- List the entire chart run
- Weeks at #1 position
- Weeks in the top 10
- Weeks in the top 40

### **SECTION 2**

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- Using all the weeks in the Top 40 determine the:
  - Mean (hundredth), median, mode, and range
  - Lower quartile, Upper quartile, Interquartile range
  - Mean absolute deviation (hundredth)

### **SECTION 3**

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- A separate dot plot of the Top 10 data for each song

### **SECTION 4**

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- A box plot of the data for each song all using the same number line

### **SECTION 5**

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- Your scoring system based on the chart data explained. Think carefully about what seems to be a fair scoring system using all your data.

### **SECTION 6**

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- Ranking – the songs listed first, second, third, fourth based on your scoring system

4. Next, survey at least 10 adults (21+ years old) that have good knowledge of 1980s hits including your 4 of your songs.

10 adults = maximum grade on the project = 90

14 adults = maximum grade on the project = 95

18+ adults = maximum grade on the project = 100

Ask each person to rank the songs from 1<sup>st</sup> to 4<sup>th</sup>. With this information determine and create the following in the **SURVEY** section:

**SECTION 1**

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- A table showing all the results of your survey including the total points earned by each song.
  - Use the following to determine the total points:  
5 points for a 1<sup>st</sup> place vote, 3 points for 2<sup>nd</sup> place vote  
2 points for a 3<sup>rd</sup> place vote, 1 point for a 4<sup>th</sup> place vote

**SECTION 2**

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- A bar graph showing the total points earned by each song

**SECTION 3**

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- Ranking – the songs listed first, second, third, fourth based on the survey results

5. Make sure to listen to all 4 of your songs if you have not heard them before (Mr. Mangham can play them for you if you wish). With this information determine and create the following in the **SURVEY** section:

**SECTION 1**

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- A brief opinion as to the strengths and/or weaknesses of each song. How does the song make you feel? What specifics about the song make you feel this way?

**SECTION 2**

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- Ranking – the songs listed first, second, third, fourth based on your opinion

6. On the very bottom line list your **OVERALL BATTLE CHAMPION** based on some combination of the three rankings.