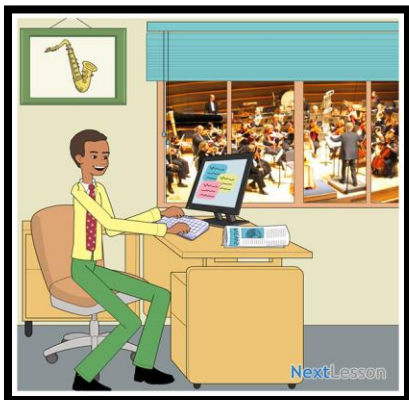# yOutuBE MuSic Songs for Everyone

Name: _____

You are a **social media manager**. You are responsible for promoting songs and understanding how people respond to the songs online.

Your Challenge: How popular are the following songs on YouTube?

This table shows some of songs, and you are to complete the number of YouTube views for each. However, the large numbers can be difficult to quickly read and compare.

1. Look up the song on YouTube and fill in the table to express each song's total views in standard form and scientific notation as shown in the example.

	Artist	Song	# Views on YouTube	# Views on YouTube in Scientific Notation	# of Likes
a.	Raymix	*Oye Mujer*	580,992,238	5.81×10^8	1,500,000
b.	Village People	*Y.M.C.A*			
c.	BTS	*Make It Right*			
d.	Ed Sheeran	*I Don't Care*			
e.	Lewis Capaldi	*Someone You Loved*			
f.	Mumford & Sons	*Awake My Soul*			
g.	Luke Combs	*When It Rains It Pours*			
h.	Edith Piaf	*La Vie En Rose*			
i.	Woody Gutherie	*This Land is Your Land*			
j.	Queen	*Bohemian Rhapsody*			

2. Put the songs in order from least to greatest in scientific notation.
You want to compare the popularity of some of the songs on YouTube using ratios.

3.   Using the numbers in scientific notation, write the ratios to compare the songs to Oye Mujer. Divide each ratio and round this result to the tenth place.

View Ratio	View Ratio (rounded to the tenths place)
$\dfrac{Song\ a}{Song\ b} =$	
$\dfrac{Song\ a}{Song\ c} =$	
$\dfrac{Song\ a}{Song\ d} =$	
$\dfrac{Song\ a}{Song\ g} =$	
$\dfrac{Song\ a}{Song\ i} =$	
$\dfrac{Song\ a}{Song\ j} =$	

4.   Using the numbers in scientific notation, write the ratios to the ratio of likes to total views. Divide each ratio and write the answer as a decimal and percent.

Like to View Ratio	Ratio (decimal & percent)
Song a: $\dfrac{Likes}{Views} =$	
Song b: $\dfrac{Likes}{Views} =$	
Song e: $\dfrac{Likes}{Views} =$	
Song j: $\dfrac{Likes}{Views} =$	

You want to look at how many songs total views for several songs.

5. Using the numbers in scientific notation, write the total number of views for the following song combinations.

Combined View Total	Sum of Views (rounded to the tenths place)
$Song\ a + Song\ b =$	
$Song\ a + Song\ d =$	
$Song\ a + Song\ j =$	
$Song\ h + Song\ i =$	
Your Choices:	

6. Using the numbers in scientific notation, write the difference in views for the following song combinations.

View Total	Sum of Views (rounded to the tenths place)
$Song\ a - Song\ b =$	
$Song\ c - Song\ d =$	
$Song\ e - Song\ f =$	
$Song\ j - Song\ a =$	
Your Choices:	

7. You are looking at earning money by charging companies to advertise on YouTube. The amount you charge depends upon the number of views. You have a scaled charge as follows:

Views	Charge per View
0 – 10,000,000	$0.10
10,000,000 – 50,000,000	$0.20
50,000,000 – 100,000,000	$0.30

Determine how much money will you charge on the following videos?

a. Song a

b. Song b

c. Song e

d. Song j