

USING RATIOS TO IDENTIFY SOCIAL MEDIA ENGAGEMENT

Est. Time: 60 minutes

Subjects: Math

Age Range: Elementary (6th Grade)


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★ *TEACHROCK* ★



How can ratios be used to identify a music artist's social media audience engagement?

In this lesson you will:

- Discover how ratios can be used to determine social media audience engagement
 - Identify the percentage of audience engagement for Beyoncé's Instagram account
 - Compare and contrast the audience engagement of Beyoncé's Instagram account to other Instagram accounts
 - Explore other ways ratios can be used to analyze social media audience engagement
- 



Prior to starting, it may be helpful to review a **social media auditor site like this one**. An online auditor will likely be needed to acquire the data necessary to write the ratios in this lesson, as well as answer the questions.





Read this definition.


Consider or ask a friend:

- What is a social network? What do you think is the purpose of the network?
- Do you have a social network? If so, what platforms (Facebook, Instagram, TikTok, Twitter) do you use to engage with social media? Is there one that you prefer to use? Why?
- Why might a music artist have a social network?

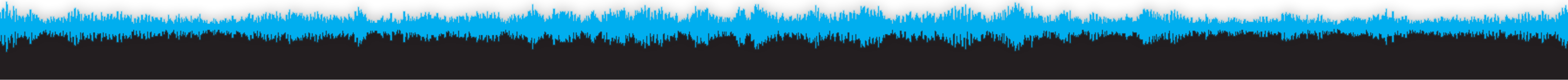
Social Network : A dedicated website or other application which enables users to communicate with each other by posting information, comments, messages, images, etc.

-Definition via Google's partnership with Oxford University Press





In this lesson, you'll be exploring how math can be used to analyze social media audiences. Specifically, how ratios are used to identify the social media audience engagement rate for social media accounts.



Study the image to the right.

Ratios are used to compare two things and can be written in a variety of ways. The social media industry often uses two types of ratio formulas for calculating and identifying an account's audience engagement rate: the Classic Formula and the Advanced Formula.

Use “:” to separate the values **20 : 1**

Use the word “to” **20 to 1**

Write it as a fraction $\frac{20}{1}$

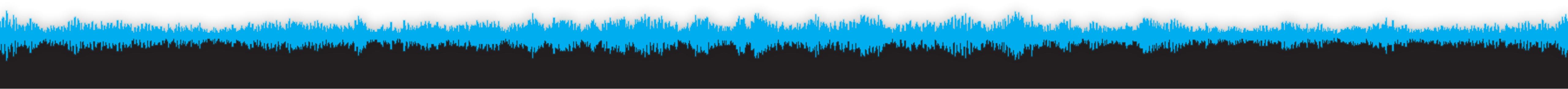


Study the image to the right.

Notice that the Classic and Advanced formulas are used as social network benchmark tools for calculating and identifying the depth of a social media account's audience engagement. Typically, only a fraction of an account's Followers see posts (about 10% - 30%).


Classic Formula - Likes : Followers (take the number of reaches [Likes] and divide it by the number of Followers and then multiple by 100).


Advanced Formula - Comments : Likes (take the number of interactions [Comments] and divide it by the number of reaches [Likes] and then multiple by 100).





Consider or ask a friend:

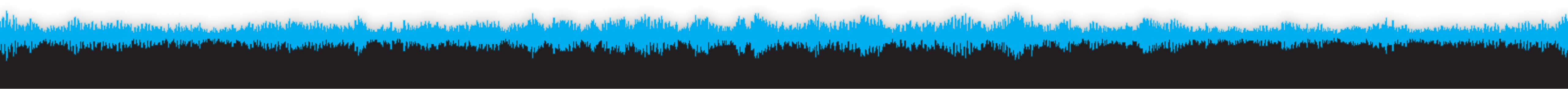
- Why might you want to identify the audience engagement rate of your social network?
 - Why might the audience engagement rate of a music artist's social media network be particularly important to identify?
- 




The Classic formula provides an assessment of audience engagement that can be helpful to an artist in understanding their followers. However, inactive followers, followers who were not reached by the platform's algorithm, are being included in the answer. That number is not as accurate of an assessment of audience engagement as it could be.

Classic Formula - Likes : Followers (take the number of reaches [Likes] and divide it by the number of Followers and then multiple by 100).

Advanced Formula - Comments : Likes (take the number of interactions [Comments] and divide it by the number of reaches [Likes] and then multiple by 100).






The Advanced formula provides a more accurate assessment of audience engagement. The advanced formula solely analyzes account Followers who are directly interacting with the social media account's posts, typically by leaving Comments.

Classic Formula - Likes : Followers (take the number of reaches [Likes] and divide it by the number of Followers and then multiple by 100).

Advanced Formula - Comments : Likes (take the number of interactions [Comments] and divide it by the number of reaches [Likes] and then multiple by 100).



The case study for identifying social media audience engagement for this lesson will be the acclaimed singer, songwriter, entertainer, and businesswoman, Beyoncé.

Consider or ask a friend:

- Have you heard of **Beyoncé**?
- Do you know any of her songs?
- Do you know if she has a social media network of various platforms?



Study the image to the right.

Consider or ask a friend:

- Which platforms make up Beyoncé's social network?
- Looking at the activity and numbers of those platforms, which platform might have the most engagement?

Beyoncé's Social Network as of September 2021



56M Followers



11K Followers



209M Followers



15.5M Followers



1.1K Followers




Work through the instructions in **Handout - Social Network Math**. Write ratios, provide percentages, and answer the questions.

*In order to complete the handout, you will need to access the most current data available by visiting this **social media auditing site**.





Viewing your work, noting your percentages, and referencing your answers to the concluding questions, consider or ask a friend:

- According to the ratios you calculated, which account has the highest percentage of Likes to Followers? Which account has the highest percentage of Comments to Likes?
 - Did the audience engagement ratio for an account vary depending on the depth of interaction being measured?
 - Which ratio percentage determines deeper audience engagement? Why?
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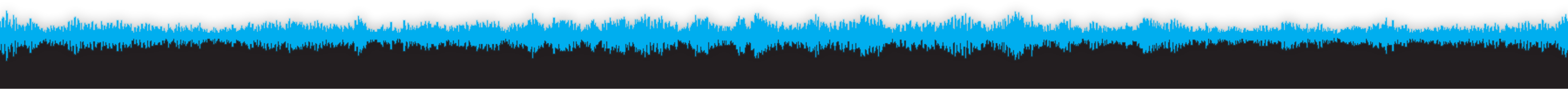
SUMMARY

- Ratios are an essential tool for determining social media audience engagement
- There are two ratio formulas that can be used in determining audience engagement: the Classic formula and the Advanced formula
- The Advanced formula provides a more accurate percentage of audience engagement by utilizing the percentage of Comments to Likes?
- Beyoncé is an acclaimed singer, songwriter, entertainer, and businesswoman who utilizes here social media network to connect with her audience

BE CREATIVE

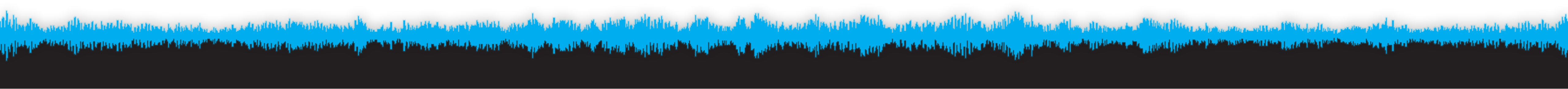
The current record for most Likes on Instagram is **the image of an egg**. Research that post and utilize the Classic and Advanced formulas for determining the depth of engagement for the post. Remember, you'll need to use a **social media auditing site**. Then, share your findings with your class, and highlight the popularity of the egg image!

BE CURIOUS

- Beyonce's Instagram account is estimated to grow by +161,615 followers per day. With that estimation, what would be the ratio formula for determining how many new followers her page receives per hour?
 - Each post by Beyoncé on Instagram has an estimated worth of \$1 million. With that estimation, what would be the most accurate ratio formula for determining the dollar value per Like and per Comment for one of her posts (hint: use the numbers of Likes and Comments from the handout to plug in the numbers for the formula)?
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