



Name: _____ Date: _____

Math in Music: Take the Challenge
Student Handout

The Hip Hop duo DobleFlo is trying to mix an electronic drum track with an instrumental sample, but the tempos don't match. To help them fix the track, calculate the tempo (speed) of the instrumental sample in BPM (Beats Per Minute).

- Go online to www.getthemath.org, click on "The Challenges," then scroll down and click on "Math in Music: Take the Challenge."
- Select "Next" to begin. You should now see the mixed track, drum track and instrumental sample. Play each one and then follow the steps below.

1. Identify what you already know:

- View the NEXT screen, "Find the Tempo of the Instrumental Sample. "
- How long is the sample?

Length of sample (in seconds): _____

- Listen to the instrumental sample and count the total number of beats.

Number of beats: _____

2. Plan it out. What is the problem you want to solve? How will you do it?

3. Solve your problem in the space below. *Show all your steps and be sure to label (for example: seconds, beats).*

4. Enter your answer on the screen and complete the interactive.

- Number of beats per minute: _____
(Round your answer to the nearest whole beat.)
- Listen to the sound of your mixed track. Do the tempos of the sample and the drum track match up? Explain why your plan did or didn't work.

5. How did you figure out your final solution? If you were going to email DobleFlo to explain your strategy, what would you tell them?

6. If you had to find the tempo of a new instrumental sample, with a different number of beats (let's say, b beats) and a different length (t seconds), explain what steps you would take.