



Handout 2 - Grateful Dead by the Numbers (Answer Key)

Using the data on page 1, answer the following questions:

Question #1:

The Grateful Dead played a total of 2,318 concerts. Though each Grateful Dead concert was different, the average length of time for a Grateful Dead concert was 3 hours. Calculate approximately how many hours the Grateful Dead played in all.

$$2318 \text{ concerts} \times 3 \text{ hours each} = 6,954 \text{ hours total}$$

Question #2:

Grateful Dead fans often recorded the band's concerts and traded cassette tapes of those recordings. Imagine that you have a tape of each of the 2,318 concerts that the Grateful Dead ever played, and that you have decided to spend 8 hours a day listening to all the tapes. How many days will it take you to listen to your whole collection? (*Hint: you may want to use your answer from Question #1 to help you in your calculations.*)

$$6965 \text{ hours total} / 8 \text{ hours per day listening time} = 869.25 \text{ days}$$

Question #3:

The original members of The Grateful Dead performed from December 4, 1965 to July 9, 1995. How many months in all did the band perform together during that time? **Bonus Question:** Calculate the number of days that The Grateful Dead had together, and be sure to account for leap years! (Hint: 1968 was a Leap Year). How many minutes?

$$\text{December 1965 to December 1994} = 29 \text{ years}$$

$$29 \text{ years} \times 12 \text{ month per year} = 348 \text{ months}$$

$$\text{January 1995 to July 1995} = 7 \text{ months}$$

$$348 \text{ months} = 7 \text{ months} = 355 \text{ months total}$$

Bonus:

$$365 \text{ days per year} \times 29 \text{ years} = 10,585 \text{ days}$$

$$\text{December 5, 1964 to July 9, 1995} = 216 \text{ days}$$

$$10,585 + 216 = 10,801 \text{ days}$$

$$7 \text{ Leap Years between 1965 and 1995} = 7 \text{ days}$$

$$10,774 \text{ days} + 7 \text{ leap days} = 10,808 \text{ days total}$$

$$10,808 \text{ days} \times 24 \text{ hours} = 259,392 \text{ hours total}$$

$$259,392 \text{ hours} \times 60 \text{ minutes each} = 15,563,520 \text{ minutes}$$