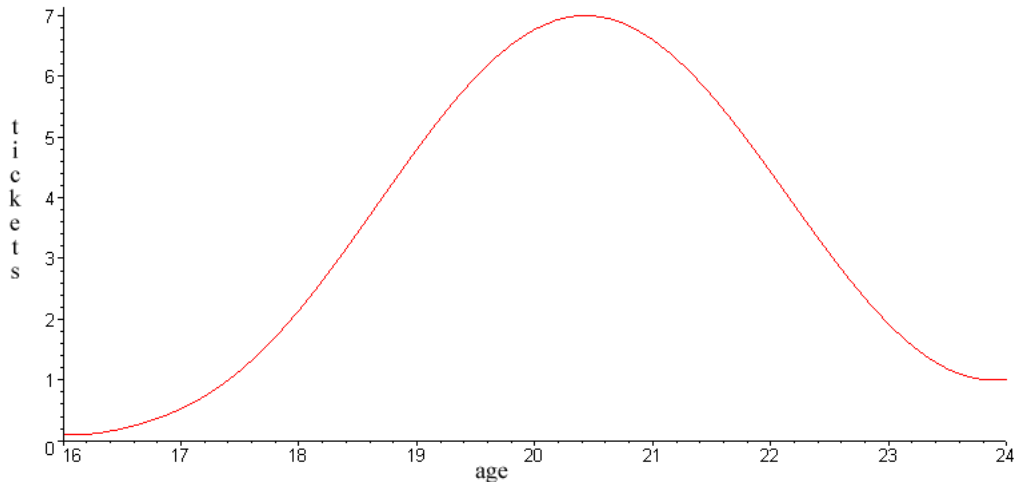


Math 2143 - Brief Calculus with Applications

Quiz #1 - 2006.01.18

Solutions

A survey of 10000 car owners in Speedville, OK was recently completed by the local police department. The graph below represents the results of one of the questions. The x -axis corresponds to the age of a person in Speedville, and the y -axis to the corresponding average number of tickets for that age.



Answer the following questions based on the above graph.

1. At about which age do people have the most speeding tickets on average?

The age of 20.5 or so seems to be the age at which the most tickets have been given on average.

2. What is the value of the average number of speeding tickets for the age group from problem 1?

The average number of tickets is about 7.

3. At which age is the average number of tickets the lowest?

Age 16 appears to be when the average number of tickets is lowest.

4. Which age group averages more than 2 tickets?

From ages 18 to almost 23 it appears that the average is more than 2 tickets.

5. Is there an age where no one gets a speeding ticket on average?

No, although at age 16 it comes close.

6. Is there an age where it is possible that someone in that age group does NOT have a speeding ticket? Why or why not?

It is possible that someone in ANY age group does not get a speeding ticket, as the graph represents the average number of tickets for the age groups represented.