Little Brown Jug Math Activities

Math-related activities for the Tote Bag folder on the Little Brown Jug

1. Students are given raw data in the form of a table listing the winning times for the horses who have won the Little Brown Jug race beginning with the first race (1946) and every ten years over the next 70 years (2016).

The students are asked to graph the results with the winning time on the vertical axis and dates, in 10 year increments, on the horizontal axis.

When the graphs are complete, students should be asked, "what is the trend-- for horses to be getting faster? Slower? or staying the same? An additional question might be asked: "Based on the trend you see in the graph, when do you think the winning time will be 1:45?

Note: students may need to learn that a time of 1:45 means "One minute and 45 seconds."

Year	Little Brown Jug winning time
1946	2:07
1956	2:01
1966	1:59
1976	1:57
1986	1:53
1996	1:52
2006	1:51
2016	1:49

2. Here is an additional math exercise: "If a horse takes 2:00 to run 1 mile, how fast (in miles per hour) is the horse going?" Answer: 30 miles per hour

"How fast do you think the fastest person has ever run 1 mile?" "Do you think the fastest person is faster or slower or just as fast as a horse?"

The world record for a 1 mile run (in an international track and field competition) is 3:43.13. That is 17.5 miles per hour.

3. Roger Huston began announcing horse races in 1960 and he is still announcing as a full time job. He has announced 171,000 races in his career. On average over that time, how many races has he announced each year? How many per month? Why is it incorrect to say that he announced that many races EVERY month?

2018 – 1960 = 58

171,000 / 58 = 2948 per year.

2948 / 12 = 246 per month

Because he probably announced fewer races when he was 18 or 19 than when he was older. Because horse races are more often held in warm weather than in cold weather.

4. Similar to exercise #1, here is a table showing the amount of money that was awarded to the top horses in the Jug race from 2009 until 2018 (10 years). Make a graph showing the dollar amounts for each year. Then answer these questions: In which year was there the biggest INCREASE in money from one year to the next? In which year was there the biggest DECREASE in money from one year to the next? Finally, do you see a trend over these 10 years? Is the money increasing? Decreasing? Or staying the same?