

## The longest match

At the Wimbledon tennis tournament in 2010, the longest recorded tennis match took place between John Isner (USA) and Nicolas Mahut (France). The match was truly amazing. Here are the details:

- The score was 6–4, 3–6, 6–7, 7–6, 70–68 (Isner won).
- There were 980 points played.
- The match lasted 11 hours 5 mins.
- Isner hit 113 aces. (An ace is a legal serve that is not touched by the receiver and is therefore the winning point.)

### Calculations

Answer the following questions. Use the back of this worksheet to show your workings.

1. What was the total number of games played? .....
2. How many games did each player win? .....
3. How many minutes did the game last? .....
4. If both of the tennis players have a break every two games, how many breaks did they have?  
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### Averages

To find the **mean**, divide the total by the number of items.

5. What was the mean number of points per set? .....
6. What was the mean time spent on each set? .....
7. Why is the answer to question 3, above, not a very meaningful measure? .....
8. Use a calculator to find out how many minutes there were between Isner's aces on average. ....

## Distance and speed

9. On average, a player runs 10 m per point. How far did the players run during the match in km?

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Speed: John Isner has one of the fastest serves in the world at 149 mph (240 km/h)

10. How many metres per hour is this? .....

11. How many metres per second is this? .....

12. If Mahut stood 30 m from the ball when served, approximately how long would it take to reach him?

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## Percentages and fractions

13. Mahut won 328 of 489 points on his serve. What percentage is this? .....

14a. What fraction of the total games was the final set? .....

14b. Estimate the duration of the first set. Then explain your answer.

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