

NAME:

DATE:

PERIOD:



Forecasting Human Sporting Achievement



Introduction

At the 1936 Berlin olympics, the US sprinter **Jesse Owens** broke the 100m world record running **10.2 seconds**. This record stood for 20 years.

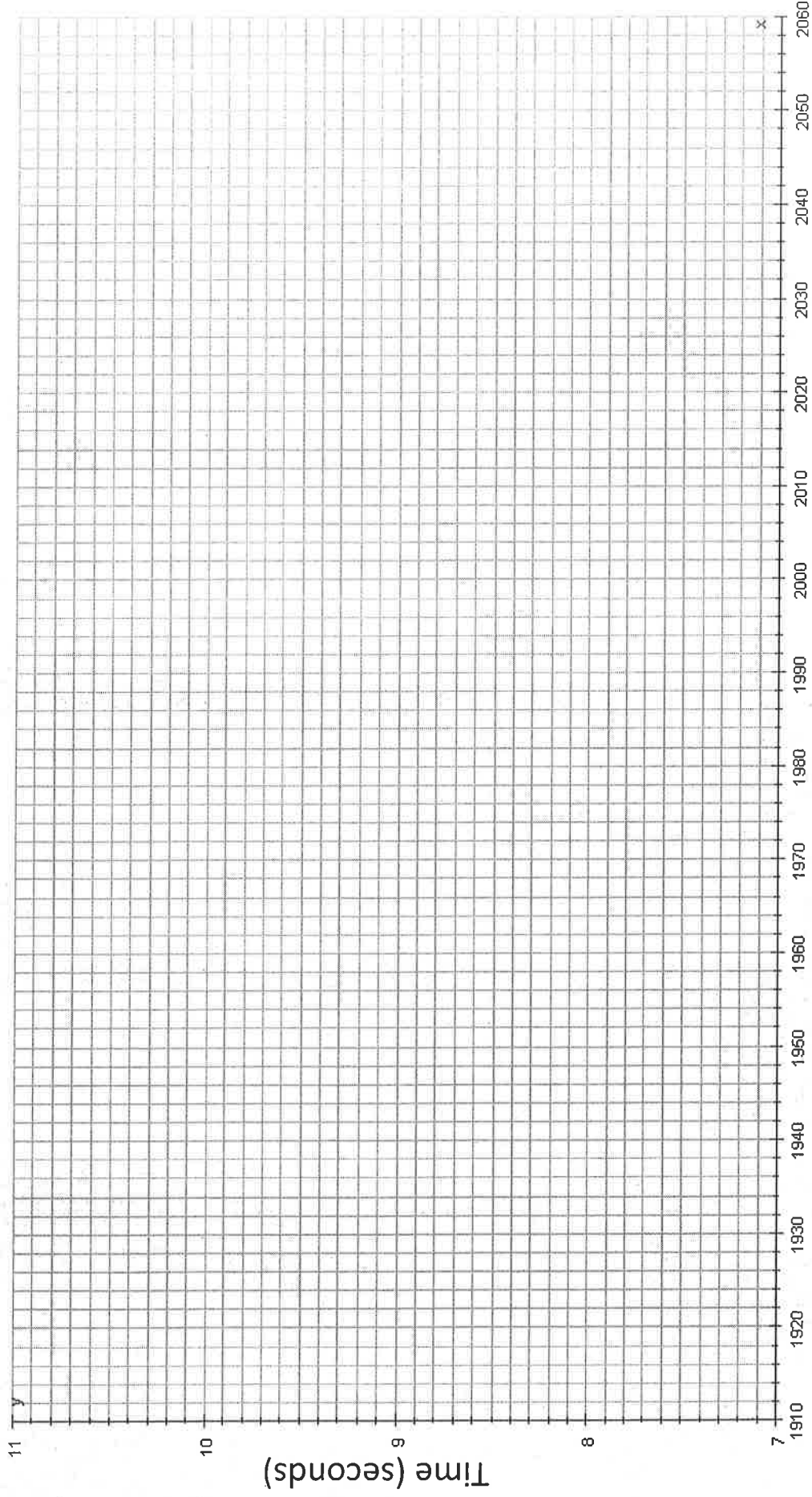
Usain Bolt from Jamaica is the fastest human being *ever*. In Berlin in 2009 he ran 100m in **9.58 seconds** – an average speed of just over **23 miles per hour**.

Thanks to many changes in the world of sport, records are broken year after year – just how fast might humans be able to run in the future.....?

(1) Watch the video clips of Usain Bolt and Jesse Owens breaking the 100m world record in 2009 and 1936. What differences do you notice between the races?

(2) How could we use statistics to predict the time taken by the 100m winner at the 2060 Olympics?

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Analysis

(1) Describe what your graph shows.

(2) What model could be used to predict future times?

(3) What time might a human take to run 100m in 2060?

(4) What will happen if this prediction model continues? Is this reasonable?

(5) What other model could be used instead? How could this be found?

(6) What factors other than human athletic ability might improve future times?