$\qquad$ Date $\qquad$ Class $\qquad$

## Challenge

## Breaking the Record

Before 1950, few people thought that a human could run a mile in under 4 minutes. Today, however, world-class runners routinely break the 4 -minute-mile mark.

The table shows the dates and the winning times for world-record mile runners. Dr. Trevor Kitson of Massey University in New Zealand studied data similar to these. He observed that the graph of the data was a straight line. From the graph, he predicted that the mile might be run in 3 minutes, 30 seconds, by the year 2033.

Use the information in the table to create a graph similar to the one constructed by Kitson. Then extrapolate the data. Predict what will happen to the shape of the graph as time goes on.

| Year | Runner | Mile Run Time <br> (minutes:seconds) |
| :--- | :--- | :--- |
| 1954 | Roger Bannister | $3: 59.4$ |
| 1967 | Jim Ryan | $3: 51.1$ |
| 1985 | Steve Cram | $3: 46.32$ |
| 1999 | Hicham El Guerrouj | $3: 43.13$ |



