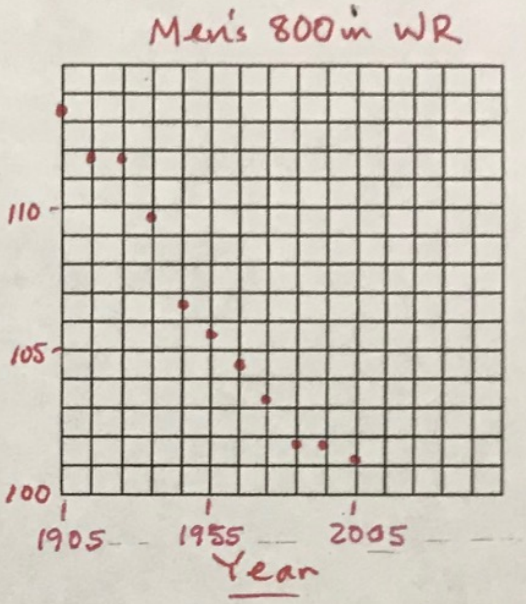
Quiz #3.3 AP Statistics Name: Mr. Bohn

The following table shows progression of the Men's 800 Meter Run World Records:

Year	Time (seconds)
1905	113.4
1915	111.9
1925	111.9
1935	109.7
1945	106.6
1955	105.7
1965	104.3
1975	104.1
1985	101.73
1995	101.73
2005	101.11



1. Construct a scatterplot on the grid provided.

2. Find the LSRL.

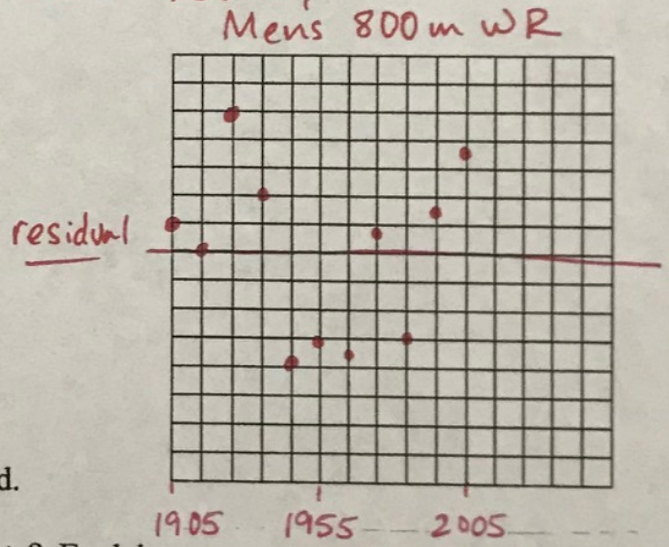
$\widehat{Time} = 366.2915 - .1329\ Year$

3. Calculate the correlation coefficient.

$r = -.9805$

4. Calculate the coefficient of determination.

$r^2 = .9615$



5. Construct a residual plot on the grid provided.

6. Is the LSRL an appropriate model for this data? Explain.

Yes - The plot of Time vs. Year looks relatively linear, there is no apparent pattern in the residual plot (and |r| is close to 1).

7. Predict the World Record for the year 2015 using your LSRL.

$\widehat{Time}(2015) = 98.5896$