

STUDENT HANDOUT

# OLYMPIC SWIM TIMES



Below are listed the winning 100 meter Olympic swim times for men and women. The women's times appear to be decreasing at a faster rate than the men's, implying that the women will eventually swim faster than the men. Under this assumption, you are to do the following:

**Make a mathematical analysis:**

- Plot the points for both men's and women's times on the same axes.
- Graph the best fit line for each set of points.
- Write the equation for each of the best fit lines.
- Show all calculations for the information requested below.

Write a news article reporting the event in which women make history by surpassing the men's winning time. In the article include:

- The date & winning swim time when the women's time meets or exceeds the men's. (You may make this an Olympic or non-Olympic year.)
- The general rate of improvement for each gender over the last century.
- The winning times for both the men & women in the year 1900. (label these as an ordered pair on your graph)
- The winning times for both the men & women in the year 2000. (label these as an ordered pair on your graph)
- When the women's time broke the 50 second barrier. (label this as an ordered pair on your graph)

Hint: Creating names and quotes of key figures at the event will make for a more colorful article.



100 Meter Freestyle Olympic Winning Times (seconds)

Year	Men's	Women's	Year	Men's	Women's
1912	63.20	72.20	1964	53.40	59.50
1920	61.40	73.60	1968	52.20	60.00
1924	59.00	72.40	1972	51.22	58.59
1928	58.60	71.00	1976	49.99	55.65
1932	58.20	66.80	1980	50.40	54.79
1936	57.60	65.90	1984	49.80	55.92
1948	57.30	66.30	1988	48.63	54.93
1952	57.40	66.80	1992	49.02	54.64
1956	55.40	62.00	1996	48.74	54.50
1960	55.20	61.20	2000	48.30	53.83

# 100 METER Free style Olympic Winning Times (Seconds)

