

**Applied Technical Math 9/12**

**Warm Up**  
**AIMS Web 1**

# 1.1 The Shape of a Linear Equation

I can construct a graph and trend line given a table of ordered pairs

5. The winning Olympic discus throw is recorded through the 1900's rounded to the nearest foot. It is interesting to note that 1916 and 1940 are missing due to the first and second world wars.
- Make a graph of the data large enough to include 1992 (use graph paper and label).
  - Find the slope between 1900 and 1984, accurate to 1 decimal place.
  - Add a trend line to the graph.
  - Use your trend line to predict the winning throw in 1992.
  - Choose two representative points from your trend line and find the slope. Explain the meaning of the slope in context.

Year	Throw (ft)
1900	118
1904	129
1908	134
1912	148
1920	147
1924	151
1928	155
1932	162
1936	166
1948	173
1952	181
1956	185
1960	194
1964	200
1968	213
1972	211
1976	221
1980	219
1984	219

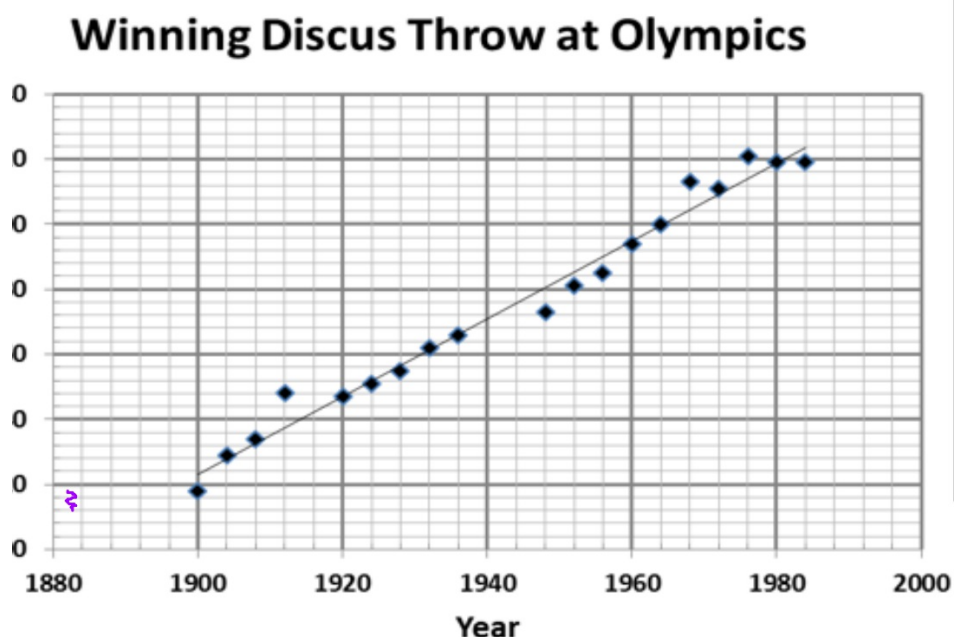
I can construct a graph and trend line given a table of ordered pairs

A. Make a graph of the data large enough to include 1992 (use graph paper and label).

and  $X = \text{years after } 1900$

C. Add a trend line to the graph.

Year	Throw (ft)
1900	118
1904	129
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- B. Find the slope between 1900 and 1984, accurate to 1 decimal place.

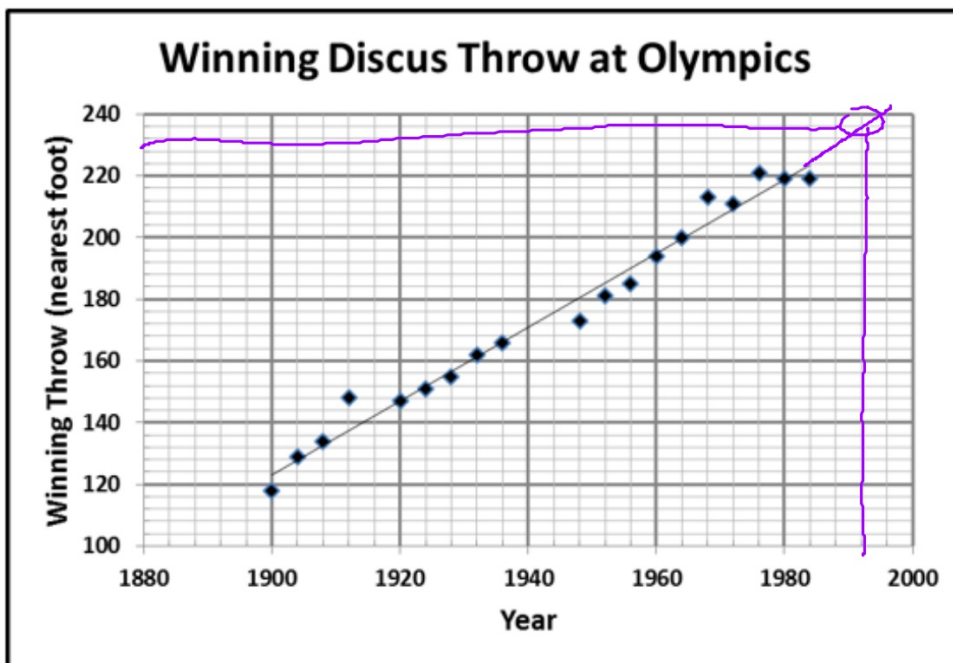
$$(1900, 118)$$
$$(1984, 219)$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{219 - 118}{1984 - 1900}$$
$$= \frac{101}{84} = 1.2$$
$$\approx 1.202$$

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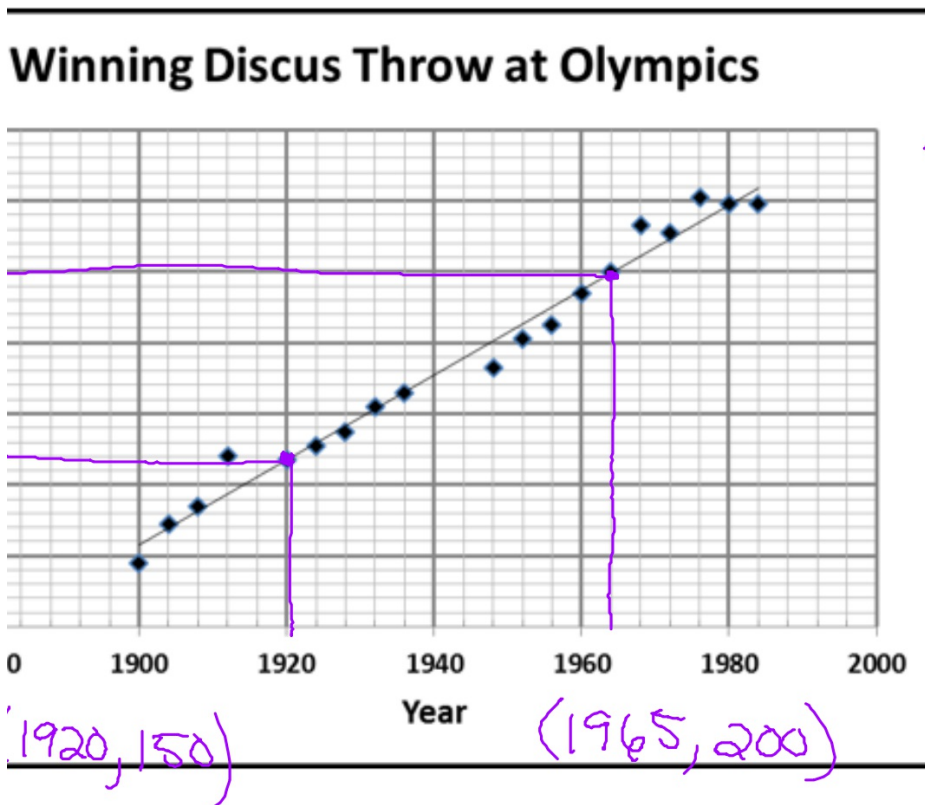
D. Use your trend line to predict the winning throw in 1992.



~ 233ft

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- E. Choose two representative points from your trend line and find the slope. Explain the meaning of the slope in context.



$$\frac{200 - 150}{1965 - 1920} = \frac{50}{45}$$
$$\approx 1.1$$

For every year  
the throw is  
1.1 ft farther

I can construct a graph and trend line given a table of ordered pairs

# Hmwk

## Pg 12 #6-8