

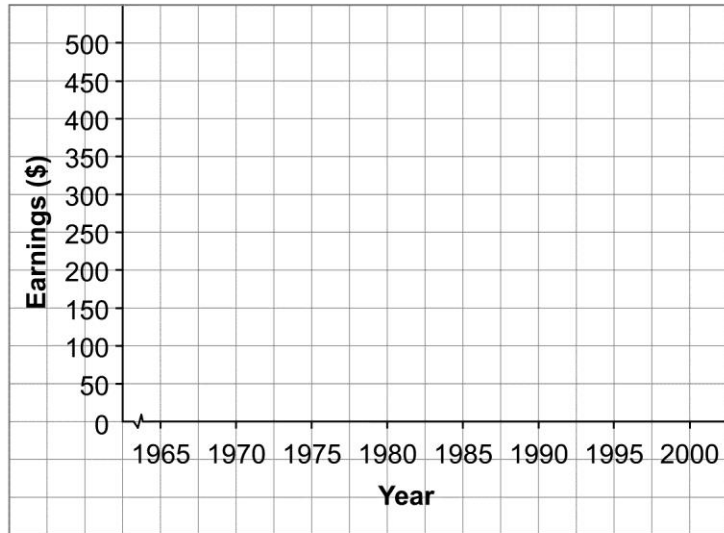
## MFM 1PI Graphing Relations Review

1. The table shows the average weekly earnings of Canadian production workers, rounded to the nearest dollar.

Year	1970	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1992	1994
Earnings (\$)	120	137	155	175	204	235	267	293	305	322	345	354	386

- a) Describe the trend in the data.

**Average Weekly Earnings for Canadian Production Workers**



- b) Graph the data.  
Draw a line of best fit.
- c) Estimate the weekly earnings in 1981. Explain how you made your estimate.
- d) When do you think the weekly earnings will reach \$450?  
Explain how you made your prediction.

2. Non-smokers are charged different life insurance premiums. The monthly premiums one company charges for \$50 000 of life insurance for a male non-smoker are shown in the table.

- a) Describe the trend in the data.

- b) Graph the data and draw a curve of best fit.

- d) Estimate the monthly premium this company would charge a 65-year-old male non-smoker

Age	Monthly premium (\$)
35	6.00
40	8.00
45	11.50
50	18.00
55	28.50
60	44.50

- e) At about what age would a male non-smoker's monthly premium be \$40.

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Terminology:

<b>Term:</b>	<b>Definition</b>
<b>Scatter Plot</b>	
<b>Trend</b>	
<b>Linear</b>	
<b>Non-linear</b>	
<b>First differences</b>	
<b>Correlation</b>	
<b>Relationship</b>	
<b>Line of best fit</b>	
<b>Curve of best fit</b>	
<b>Interpolation</b>	
<b>extrapolation</b>	