2.4 Trends, Interpolation and Extrapolation Worksheet
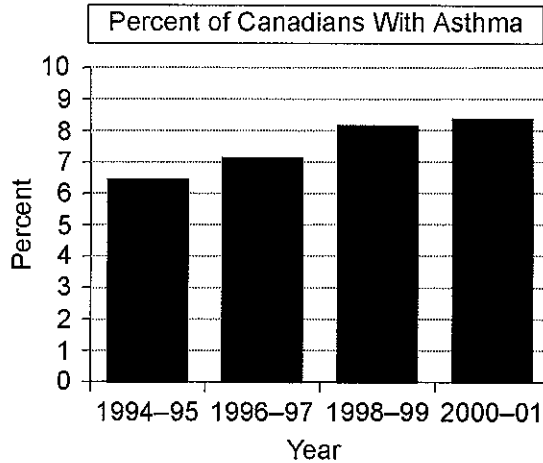
MPM1D

Jensen

1. The graph shows the percent of Canadians with asthma.

Percent of Canadians With Asthma

Source: Statistics Canada, CANSIM, tables 104-0001 and 105-0001 and Catalogue no. 82-221-X.

a) Did the percent of Canadians with asthma increase or decrease between 1994 and 2001? How do you know?

b) Describe the trend in the percent of Canadians with asthma.

2. A teacher at an elementary school kept track of the numbers of students who regularly walk to school. The data are displayed in the table.

Year	Number of Students
1980	224
1985	203
1990	176
1995	?
2000	102
2005	85

a) Make a scatter plot of the data.

b) Describe the trend in the number of students who regularly walk to school.

c) Using a line of best fit, predict the number of students who walked to school regularly in 1995. Is this interpolation or extrapolation?

3. The table shows the population of Alberta from 2001 to 2005.

| Year	Population (1000s)
2001	3056.7
2002	3116.3
2003	3159.6
2004	3204.8
2005	3256.8

Source: Statistics Canada, CANSIM, table (for fee) 051-0001.

a) Make a scatter plot of the data.

b) Describe the trend in the population of Alberta.

c) Using a line of best fit, predict the population of Alberta in 2010. Is this interpolation or extrapolation?
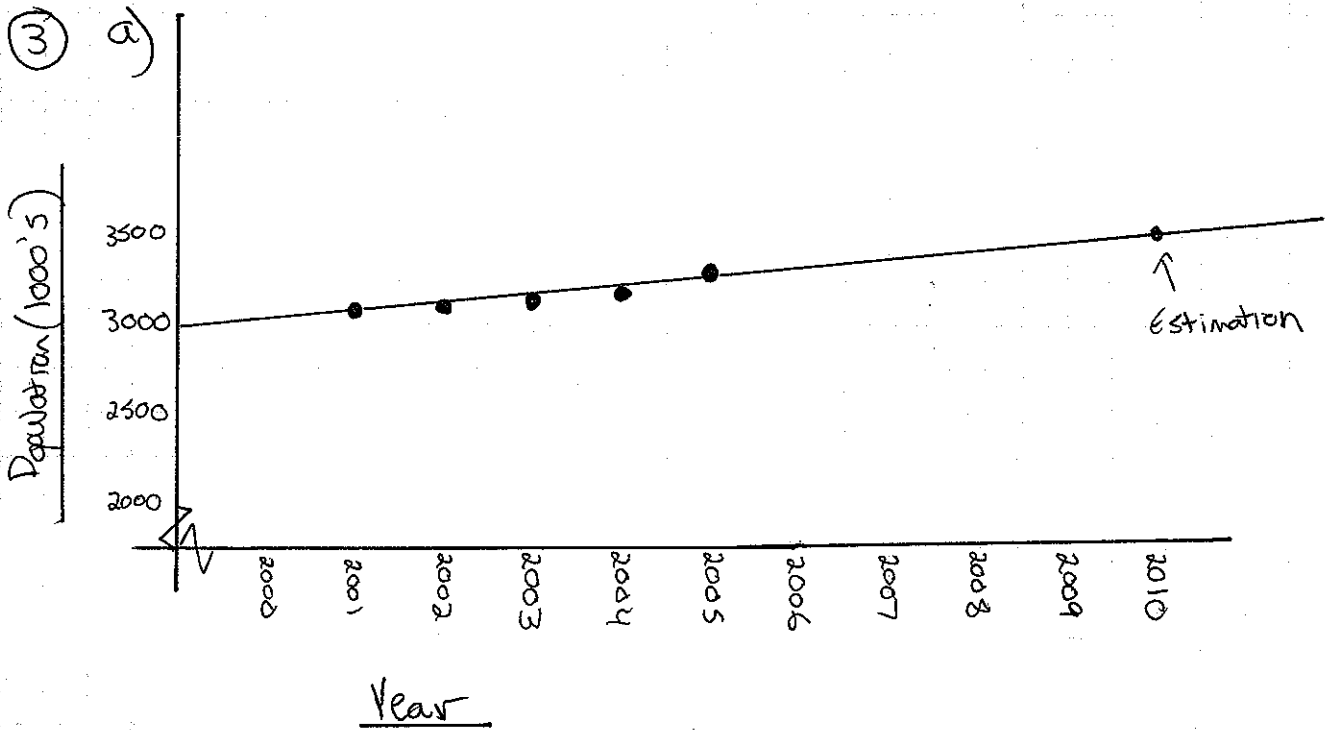
① a) increase
b) the number of Canadians with asthma has increased each period from 1994 to 2001

② a)
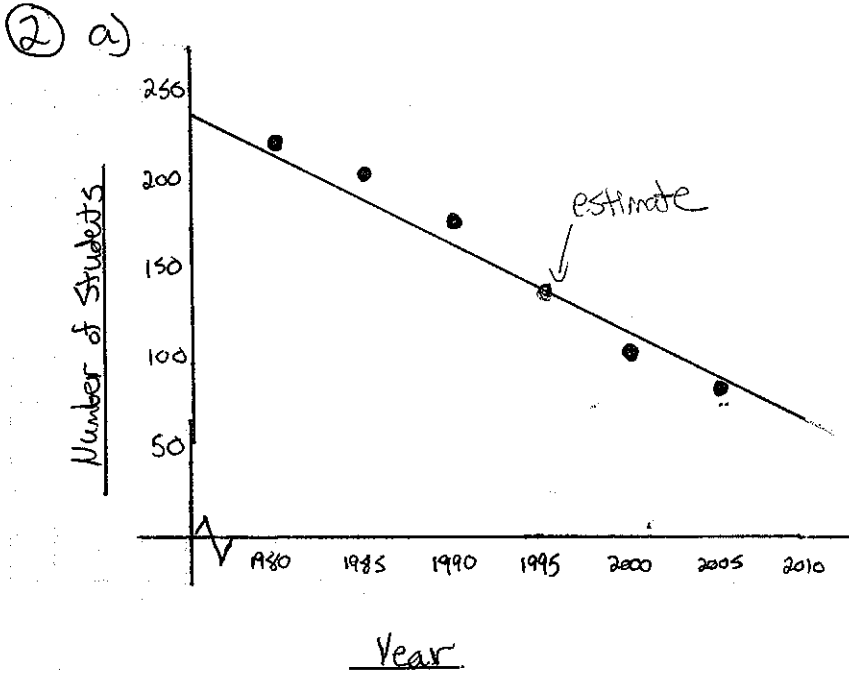
b) The # of students who walk to this elementary school has decreased steadily from 1980 to 2005.

There is a strong negative correlation.

c) Approximately 135.
Interpolation

③ a)

b) The population of Alberta has shown a steady increase from 2001-2005. There is a strong positive correlation.

c) 3 500 000, Extrapolation.