

Name _____

Date _____

Lesson 11: Using Linear Models in a Data Context

Exit Ticket

1. According to the Bureau of Vital Statistics for the New York City Department of Health and Mental Hygiene, the life expectancy at birth (in years) for New York City babies is as follows.

Year of birth	2001	2002	2003	2004	2005	2006	2007	2008	2009
Life expectancy	77.9	78.2	78.5	79.0	79.2	79.7	80.1	80.2	80.6

Data Source: http://www.nyc.gov/html/om/pdf/2012/pr465-12_charts.pdf

- a. If you are interested in predicting life expectancy for babies born in a given year, which variable is the independent variable and which is the dependent variable?
- b. Draw a scatter plot to determine if there appears to be a linear relationship between year of birth and life expectancy.

c. Fit a line to the data. Show your work.

d. Based on the context of the problem, interpret in words the intercept and slope of the line you found in part (c).

e. Use your line to predict life expectancy for babies born in New York City in 2010.