## Math 13 Chapter 10 Overview

1) Listed below are the IQ scores of identical twins that were adopted and raised apart.

| One Twin | Other Twin |
| :---: | :---: |
| 90 | 95 |
| 99 | 101 |
| 105 | 106 |
| 109 | 103 |
| 111 | 113 |
| 98 | 100 |
| 89 | 92 |
| 115 | 116 |
| 100 | 102 |
| 107 | 104 |
| 110 | 112 |
| 102 | 101 |
| 98 | 99 |
| 92 | 94 |
| 100 | 101 |
| 111 | 112 |
| 117 | 120 |
| 102 | 99 |
| 95 | 93 |
| 105 | 107 |

a) Test for a linear correlation between the IQ's of the twins.
b) Find the regression equation.
c) Predict the IQ of the $2^{\text {nd }}$ twin if the IQ of the $1^{\text {st }}$ twin was 118 .
d) Sketch the scatterplot and regression line.
2) For the data below, find the regression model that fits the best.

| $X$ | $Y$ |
| :---: | :---: |
| -4 | -40 |
| -3 | -28 |
| -2 | -18 |
| -1 | -10 |
| 0 | -4 |
| 1 | 0 |
| 2 | 2 |
| 3 | 2 |
| 4 | 0 |
| 5 | -4 |
| 6 | -10 |

