

# Calculus AB

P-4

## Fitting Models to Data

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5) The ordered pairs give the exposure index  $x$  of a carcinogenic substance and the cancer mortality  $y$  per 100,000 people in the population.

(a) Plot the data. From the graph, do the data appear to be approximately linear?

(3.50, 150.1)
(3.58, 133.1)
(4.42, 132.9)
(2.26, 116.7)
(2.63, 140.7)
(4.85, 165.5)
(12.65, 210.7)
(7.42, 181.0)
(9.35, 213.4)

(b) Visually find a linear model for the data. Graph the model.

(c) Use the model to approximate  $y$  if  $x = 3$ .

Assignment:

Pg. 34

1 - 4 all,

6 - 12, even

15, 16, 18