

**A More Realistic Exercise involving a Demand Function**  
(Fill in this sheet as we develop the ideas in class.)

Products for which there are obvious substitutes are more likely to have a strong relationship between demand  $x$  and price  $p$ . Consider one brand of protein bar at a discount store. Historical data on demand (in thousands of bars) and price (in cents) is recorded here:

$x$ (number demanded in thousands)	3.1	2.2	1.5	1.3
$p$ (price in cents)	50	99	159	199

- A. Using the data, obtain the demand function:
- B. If price is increased to \$2.99 (299), will there be more or less revenue than at 99 cents?
- C. What price (and what demand) will maximize revenue?