

P101#6

- (a) 2000 items would be sold if the price is \$150.
- (b) 25 less items would be sold if the price rises from \$150 to \$151.

P102#19

- (a) There are 2 millions people more in Mexico in 1987 than in 1986
- (b) The population of Mexico reaches 95.5 millions in the year 1996
- (c) When the population in Mexico is 95.5 millions, it tooks approximately 0.46 years to increase to 96.5 millions.

P102#21

- (a) At the 5th hour, the depth of the water in the tank is 3 feet.
- (b) At the 5th hour, the depth of the water will increase by approximately 0.7 feet if the water continues to flow into the tank for one more hour.
- (c) When the depth of the water is 5 feet, the water has been flowing into the tank for 7 hours.
- (d) When the depth of the water is 5 feet, it took another 1.2 hours for the depth to increase to 6 feet.

P103#28

- (a)
- (b) When the company spends 100,000 dollars in advertising, the revenue will increase by approximately 2,000 (resp. 500) dollars if they spends 1,000 dollars more in advertising.
- (c)

P103#31

- (a) There are approximately $P'(66)$ people in the US whose height is between 66 and 67 inches.
- (b) unit: number of people per inch
-
- (d) No, because $P(x)$ is an increasing function from its definition.