

## Homework Solutions

### Chapter 13 – Page 821

#### Exercise 1

(a) Yes. Let  $x = 30$  (hundreds of square feet) and find  $y$ :

$$\begin{aligned}y &= -30,000 + 7000(30) \\ &= -30000 + 210000 \\ &= 207,000.\end{aligned}$$

(b) Yes and no. Yes, in the sense that you can let  $x = 50$  and get a value for  $y$ . No, in the sense that 50 is outside the range used to derive the equation (which was 15 to 35 hundred square feet). Part (a) was *interpolation*, which is generally accurate. Part (b) is *extrapolation*, which is often not accurate.