Problem 9-46

Given the following data:

Year	Cost/Unit($)
1	23.00
2	26.00
3	30.50
4	29.20
5	27.60
6	30.40
7	31.60
8	36.60

We can use excel to create a line graph of the time series and create a linear trend line. Doing this gives us the answer of (B).

In excel, we can create a simple linear regression model for these data. This gives a regression equation of:

$$22.8643 + 1.444(year)$$

The average cost increase per year is the slope of our regression equation, so our average cost increase is:

$$\$1.444$$