

## Answer on Question #79123 – Math – Financial Math

### Question

A local Dunkin' Donuts shop reported that its sales have increased exactly 14% per year for the last 2 years. This year's sales were \$81,413. What were Dunkin' Donuts' sales 2 years ago? (Round each year's sales to the nearest dollar.)

### Solution

Dunkin' Donuts shop sales rise according to the following equation:

$$S = S_0(1 + p)^y,$$

where  $S_0$  is initial sales,  $p$  is grows rate (14% in our case),  $y$  is number of years passed.

Since  $S = \$81,413$ ,  $y = 2$  and  $p = 0.14$ , we obtain

$$S_0 = \frac{S}{(1 + p)^y} = \frac{\$81,413}{1.14^2} = \$62,645$$

**Answer:** \$62,645.