

Net Sales The table shows the net sales a_n (in billions of dollars) for Dollar Tree from 2001 through 2013. (Data Source: Dollar Tree, Inc.)

	Year	Net sales, a_n
Spreadsheet at LarsonPrecalculus.com	2001	1.99
	2002	2.33
	2003	2.80
	2004	3.13
	2005	3.39
	2006	3.97
	2007	4.24
	2008	4.64
	2009	5.23
	2010	5.88
	2011	6.63
	2012	7.39
	2013	7.84

- Use a graphing utility to plot the data. Let n represent the year, with $n = 1$ correspond to 2001. Do you think the data could be represented by an arithmetic sequence? Explain your reasoning.
- Use the *linear regression* feature of a graphing utility to find an arithmetic sequence for the data.
- Create a table that compares the actual data values with the values given by the arithmetic sequence.
- Does it appear that the model is a good fit for the data? Explain your reasoning.
- Use the sequence from part (b) to estimate the net sales for Dollar Tree in 2014.
- Use the Internet to find the actual net sales for Dollar Tree in 2014, and compare this value with your estimate from part (e).