

# 4.1–4.2 Quiz

**DATA** Average Inflation Rate In Exercises 1–6, use the information below.

From 1983 to 2010, the average annual inflation rate in the United States was about 3%.



- Write a formula that can be used to model the exponential growth of the CPI from 1983 to 2010.
- Use the formula from Exercise 1 and a spreadsheet to project the CPI from 1983 to 2020.

Year	CPI
1983	100.0
1984	
1985	
1986	
1987	
1988	
1989	
1990	
1991	
1992	

Year	CPI
1993	
1994	
1995	
1996	
1997	
1998	
1999	
2000	
2001	
2002	

Year	CPI
2003	
2004	
2005	
2006	
2007	
2008	
2009	
2010	
2011	
2012	

Year	CPI
2013	
2014	
2015	
2016	
2017	
2018	
2019	
2020	

- Use a spreadsheet to create a double bar graph to compare the projected CPI to the actual CPI from 1983 to 2010.
- You buy a new car for \$25,000 in 2010. Using the actual CPI for 2010, what would you expect to pay for a new car with similar features in 2020?
- On “Black Tuesday,” October 29, 1929, the stock market lost over \$14 billion. Estimate this loss in terms of 2020 dollars. The CPI for 1929 is 17.1.
- You invest \$10,000 in 2005. Your investment earns an average of 2% annually for 15 years. In 2020, is the buying power of your investment higher than in 2005? Explain your reasoning.

