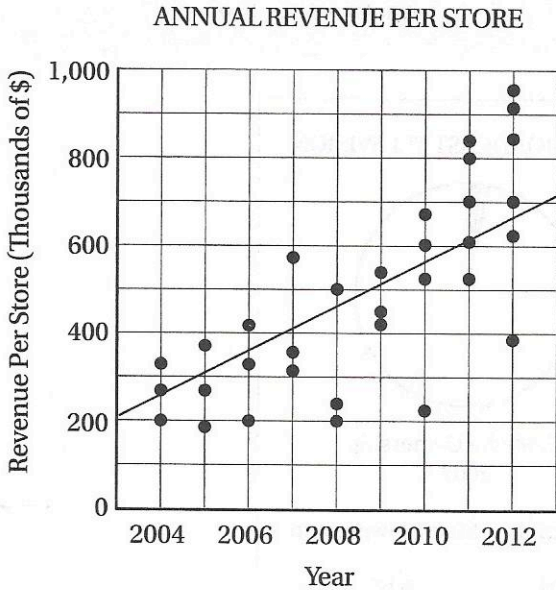


# Exercise Set 5 (Calculator)

Questions 1–4 refer to the following information



**1** The scatterplot above shows the annual revenue for all of the individual retail stores operated by a clothing company for each year from 2004 through 2012. Based on the line of best fit to the data shown, which of the following is closest to the percent increase in revenue per store from 2005 to 2011?

- A) 50%
- B) 100%
- C) 120%
- D) 300%

**2** In 2006, the total combined revenue for all stores was closest to

- A) \$350,000
- B) \$480,000
- C) \$700,000
- D) \$950,000

**3** From 2009 to 2010, the total combined revenue for all stores increased by approximately

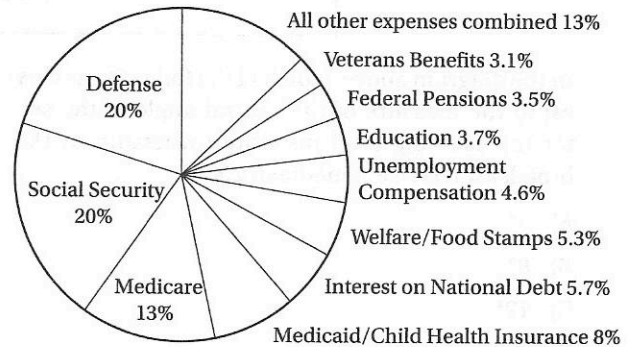
- A) \$50,000
- B) \$200,000
- C) \$400,000
- D) \$600,000

**4** Between 2006 and 2012, what was the percent increase in the total number of retail stores for this company?

- A) 45%
- B) 50%
- C) 100%
- D) 200%

Questions 5–9 refer to the following information

UNITED STATES FEDERAL BUDGET—FISCAL YEAR 2010



**5** The chart above shows the allocation of \$3.5 trillion in U.S. federal expenses for 2010. What were the total 2010 expenditures on Defense?

- A) \$700 billion
- B) \$70 billion
- C) \$7 billion
- D) \$700 million

- 6 What is the measure of the central angle for the sector representing Medicare expenses?
- A)  $13.0^\circ$
  - B)  $45.5^\circ$
  - C)  $46.8^\circ$
  - D)  $48.2^\circ$

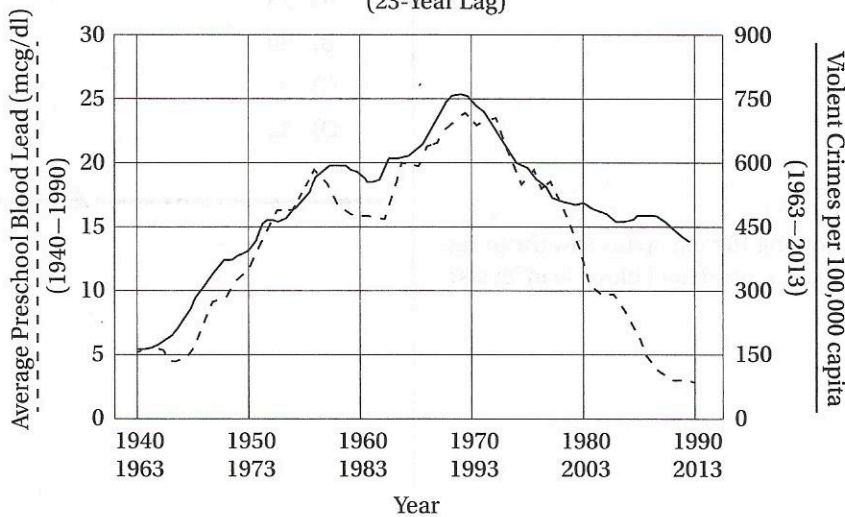
- 7 If Interest on National Debt expenses were to decrease by \$20 billion from their 2010 levels, this would represent a percent decrease of approximately
- A) 6%
  - B) 10%
  - C) 12%
  - D) 15%

- 8 How much more did the United States spend in 2010 on Interest on National Debt than on Education?
- A) \$2 billion
  - B) \$7.0 billion
  - C) \$20 billion
  - D) \$70 billion

- 9 If 50% of the budget for Federal Pensions were to be reallocated as Social Security expenses, the size of the Social Security budget would increase by what percent?
- A) 1.75%
  - B) 8.75%
  - C) 17.75%
  - D) 21.75%

Questions 10–17 refer to the following information

PRESCHOOL BLOOD LEAD LEVELS VS. VIOLENT CRIME RATES IN THE UNITED STATES (23-Year Lag)



Source: Rick Nevin, *Lead Poisoning and the Bell Curve*, 2012

- 10 According to the graph above, in 1970 the number of violent crimes per 100,000 capita in the United States was closest to
- A) 25
  - B) 375
  - C) 700
  - D) 750

11

In 1970 the average preschool blood lead level, in mcg/dL, was closest to

- A) 10
- B) 12
- C) 23
- D) 25

12

The percent decline in violent crime from 1993 to 2013 is closest to

- A) 11%
- B) 35%
- C) 47%
- D) 88%

13

From 1970 to 1990, the average annual rate of decline in preschool blood lead levels, in mcg/dL per year, was approximately

- A) 1
- B) 5
- C) 15
- D) 17

14

Which of the following 10-year spans saw the greatest percent increase in preschool blood lead levels?

- A) 1945–1955
- B) 1955–1965
- C) 1965–1975
- D) 1975–1985

15

Which of the following five-year spans saw the greatest percent increase in violent crime?

- A) 1963–1968
- B) 1968–1973
- C) 1973–1978
- D) 1978–1983

16

Approximately how many years did it take for average preschool blood lead levels to return to their 1950 levels?

- A) 25
- B) 30
- C) 35
- D) 40

17

For approximately how many years between 1963 and 2013 was the violent crime rate in the United States greater than 375 crimes per 100,000 capita?

- A) 25
  - B) 30
  - C) 37
  - D) 42
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