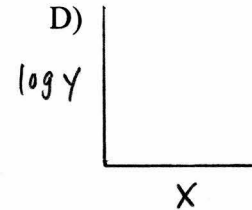
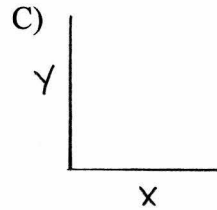
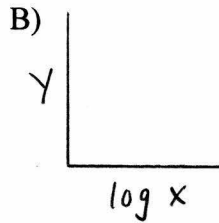
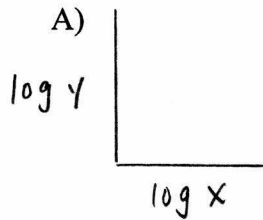


AP STATISTICS
(Sec 12.2)

1. Which coordinate plane is used for exponential regression?



2. Given $\log y = -.058 + 2.36x$, solve for y .

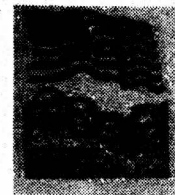
3. Below is data on the student population for a school district over the past few years. Find an appropriate prediction equation for this data.

Year	1989	1990	1991	1992	1993	1994	1995	1996
Population	1824	2006	2086	2357	3064	3676	4153	4983

Special Problem

The Cost of a First Class Stamp

Americans have a love/hate relationship with the U. S. Postal Service. They love getting mail, but they complain about letters getting lost, mail taking too long to be delivered, mail being damaged in transit, and, of course, the endless upward spiral of the cost of stamps. Stamps provide the principle source of revenue for the Postal Service. And it seems that every time you turn around, they're hiking the price of a first-class stamp. This Special problem investigates the history of the cost of a first-class stamp over the last 50 or so years to see if it's really as bad as we think.



The cost of a first-class stamp *has* risen over the years. Table SP4B shows the cost of sending a one-ounce letter and a post card through the U. S. Mail, and the dates new rates became effective. (Postal rates data from the *Statistical Abstract of the United States*, 2001.)

Date of rate change	Letter First oz.	Post Card
Aug. 1, 1958	.04	.03
Jan. 7, 1963	.05	.04
Jan. 7, 1968	.06	.05
May 16, 1971	.08	.06
Mar. 2, 1974	.10	.08
Sep. 14, 1975	.10	.07
Dec. 31, 1975	.13	.09
May 29, 1978	.15	.10
Mar. 22, 1981	.18	.12
Nov. 1, 1981	.20	.13
Feb. 17, 1985	.22	.14
Apr. 3, 1988	.25	.15
Feb. 3, 1991	.29	.19
Jan. 1, 1995	.32	.20
Jan. 10, 1999	.33	.20
Jun. 30, 2002	.37	.23

Table SP4B. *Letter and postcard rates, 1958–2002.*

Plot the data, and then use the methods of this section to construct an appropriate model for the cost of a one-ounce letter. Then use your model to predict the cost of a one-ounce letter in the year 2005.