

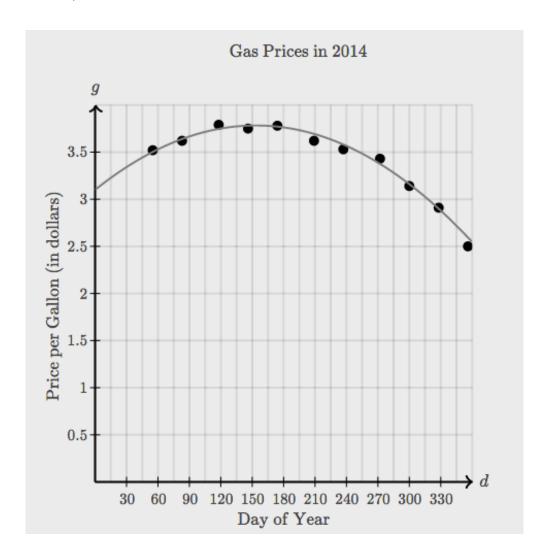
The scatterplot to the left displays the percentage, P, of paper consumed in the United States (US) that has been recycled from 1990 to 2012, where t represents years since 1990. Which of the following equations best models the relationship between years since 1990 and the percent of consumed paper that has been recycled?

$$\bigcirc P = 0.8t + 35$$

$$\bigcirc \hspace{-3mm} B \hspace{2mm} P = 1.3t + 35$$

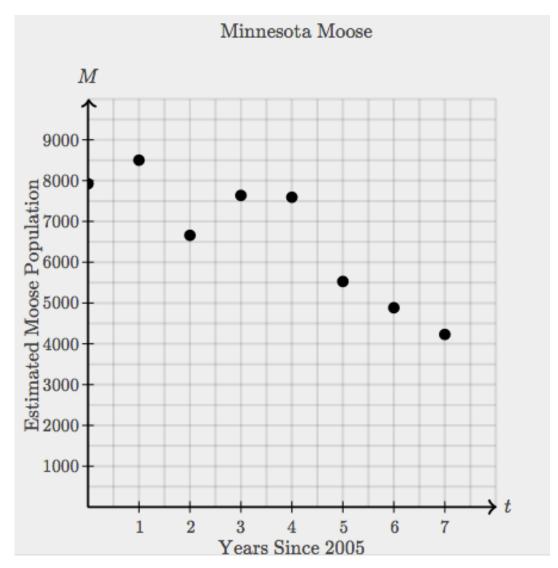
$$P = 1.7t + 35$$

D 
$$P = 3t + 35$$



Adsila monitored gas prices at her local gas station throughout 2014. The scatterplot to the left shows the price, g, in dollars, for 1 gallon of gas on various days of the year, where d represents days since January 1,2014. A function that models the data is shown on the graph. Which of the following best approximates the price for 1 gallon of gas on September 12,2014, the  $255^{\rm th}$  day of the year?





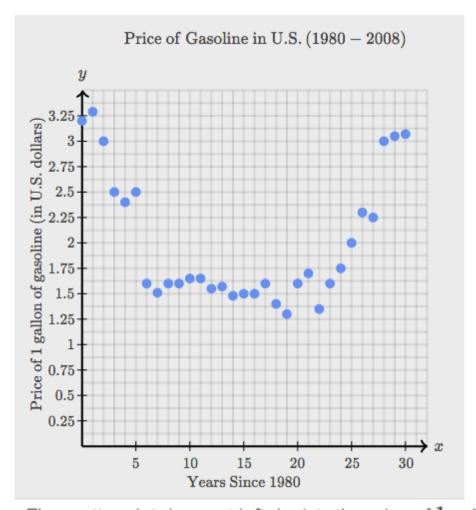
The scatterplot to the left shows the number of moose, M, estimated to be living in Minnesota from 2005 to 2012. Which of the following equations best models the population of moose in Minnesota during this time period, where t represents the years since 2005?

$$M = 8,593 - 563t$$

$$M = 10,343 - 1,842t$$

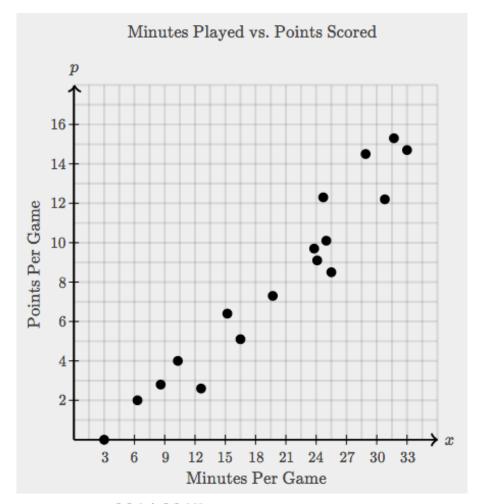
$$M = 7,923 + 578t$$

$$M = 5,725 + 467t$$



The scatter plot drawn at left depicts the price of 1 gallon of gasoline in the United States (U.S.), y, in dollars, from 1980 to 2008. If x represents the number of years since 1980, the graph of a quadratic model that fits this data has a vertex at (17.24, 1.33). What does the vertex tell us about U.S. gas prices?

- In the year 1997, the price for 1 gallon of gasoline reached its exact maximum value of \$1.33.
- In the year 1997, the price for 1 gallon of gasoline reached its exact minimum value of \$1.33.
- In approximately the year 1997, the price for 1 gallon of gasoline reached its approximate maximum value of \$1.33.
- In approximately the year 1997, the price for 1 gallon of gasoline reached its approximate minimum value of \$1.33.



During the 2014-2015 season, a statistician collected data on a professional sports team. The scatterplot to the left shows his findings for the average minutes played per game and the average points scored per game for each player on the team. Which of the following equations best relates minutes played per game, x, and points scored per game, p, for players on this team?

$$p = 0.5x - 2$$

$$p = 0.5x + 3$$