

**PASSAGE 2** (FOR QUESTIONS 3-4)

The ninth leader of the Mali Empire was Mansa Musa, who oversaw a time of unparalleled prosperity for his people. Along with his wealth, Musa is known for expanding the empire's relationship with Islam globally and for strengthening its academic culture. As part of this intention, in 1324, he undertook a pilgrimage to the holy city of Mecca, a journey known as a *hajj* in the Muslim faith. Musa was said to have brought 60,000 followers and slaves and approximately 50,000 pounds of gold, which he gave and spent freely on the 2,700-mile journey. The emperor was particularly generous in Cairo and Medina, two prominent cities and Islamic cultural centers.

## Question #3

Based on the text, what is true about Mansa Musa's display of wealth during his *hajj*? It was:

- (A) an attempt to gain economic control of Cairo, Medina, and the surrounding regions.
- (B) an ill-advised endeavor that brought financial ruin to the Mali Empire against the wisdom of its scholars.
- (C) a show of the Mali Empire's success after several wars with neighboring peoples.
- (D) an effort to ingratiate his nation with the wider Muslim world and build up the empire's image.

## Question #4

Which of the following best describes the function of the underlined phrase in the overall structure of the text?

- (A) It explains why Cairo and Medina were considered the two most central cities in the Muslim world.
- (B) It argues that Mansa Musa should have selected Cairo or Medina as his destination rather than Mecca.
- (C) It implies a causal relationship between Mansa Musa's generosity and his goal of building bridges with Islam.
- (D) It characterizes Cairo and Medina's lasting prominence as a result of the economic benefits from Mansa Musa's *hajj*.

**Reflect on Questions 3-4**

Ask yourself ...

Which question required the most steps to answer?

\_\_\_\_\_

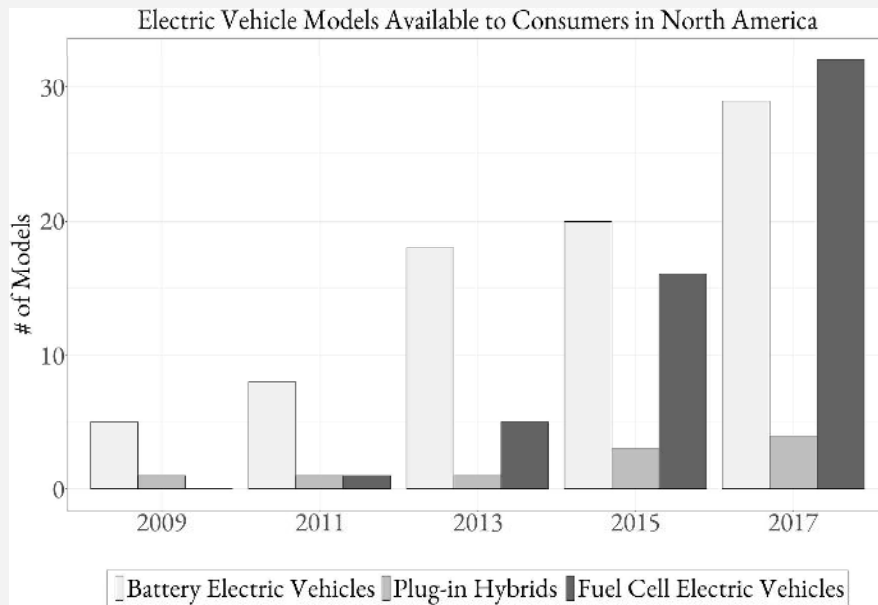
When did you feel the need to reread the passage, question, or answer choices?

\_\_\_\_\_

## Informational Graphics Model



Observe ...



Source: [www.statista.com/chart/13465/electric-vehicle-models-available-in-north-america](http://www.statista.com/chart/13465/electric-vehicle-models-available-in-north-america)

A student researching environmental engineering found the above study on the availability of various electric vehicle models in the United States. After examining the chart, the student concluded that \_\_\_\_\_

Which of the following is the most reasonable interpretation of the graph the student could make?

- (A) fuel cell electric vehicles will never be as prominent as battery electric or plug-in hybrids.
- (B) plug-in hybrids began to overtake battery electric vehicles in availability in 2017.
- (C) consumers' motor vehicle purchases are influenced by a product's perceived popularity.
- (D) battery electric vehicles have maintained the widest availability in the market since 2008.

Explanation: Answer choice (B) is correct. The bar representing battery electric vehicles was greater than the one representing plug-in hybrids until 2017. Furthermore, in 2018, 32 plug-in hybrids were available, surpassing the 29 battery electric options.

## Mixed Skills Review

- John measured the height of his window. It was 64 inches tall. How tall was the window in feet and inches?
  - 5 feet 2 inches
  - 5 feet 4 inches
  - 5 feet 14 inches
  - 6 feet
  - 6 feet 4 inches
  
- A group of friends set up a lemonade stand on its block. The friends sold 105 drinks at \$0.25 each. Their total cost for the drinks was \$11.50. Approximately what was their profit as a percent of their revenue?
  - 12.8%
  - 14.8%
  - 25.3%
  - 56.2%
  - 128.3%
  
- A car uses 11 gallons of gasoline to travel 374 miles. Which of the following is the distance, in feet, the car can travel on 27 gallons of gasoline? (1 mile = 5,280 feet)
  - 918
  - 6,649
  - 804,516
  - 1,974,720
  - 4,847,040
  
- Bianca sells beauty products. She earns \$18 per hour, an additional \$0.29 per mile for driving expenses, and \$30 per day for meals. Approximately how many miles did Bianca travel on Monday if she worked 7.5 hours on that same day and received \$187.42 in wages and expenses for the day?
  - 22.4
  - 26.1
  - 47.9
  - 64.1
  - 77.3
  
- Mrs. Brown's students wanted to know her age. She gave them this riddle: "I started working when I was 17 years old. I spent  $\frac{1}{3}$  of my working life in a restaurant. I spent  $\frac{1}{4}$  of my working life in an office, and I spent  $\frac{1}{8}$  of my working life from home. For the remaining 7 years of my working life, I've been a teacher. How old am I?" What is the answer to Mrs. Brown's riddle?
  - 24
  - 34
  - 41
  - 44
  - 48

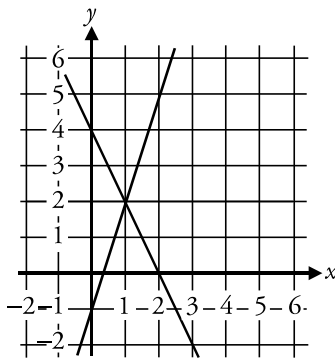
# Systems of Linear Equations

## Why Systems of Linear Equations?

In the Real World	On the Test
<p>Imagine spotting a faraway friend who is walking slowly. If you run fast enough, you can catch them. Systems of equations are used to determine the conditions under which two or more groups meet. This meeting of groups is not limited to physical location; time management, supply and demand, and chemical reactions can all be modeled using systems of equations.</p>	<p>On a recent SAT, 3 out of 58 questions featured systems of linear equations. That's about 5% of the questions. Most system of linear equations questions either ask you to solve for the variable(s) outright given the system or to translate a word problem into a system before solving for a variable. Other variants show up much less frequently.</p>

## Warm-Up

1. Two lines are shown in the  $xy$ -plane below.



- At what point do the two lines intersect? What two linear equations do they represent?
  - Summarize how to find a solution that simultaneously satisfies two linear equations by looking at their graphs.
2. Find the solution  $(x, y)$  that satisfies the equations  $3x + y = 5$  and  $2x - y = 0$  by both substitution and elimination. Which method was easier for you?