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The Downtown Business Association (DBA) in a certain city plans to increase its membership by a total of n businesses per year. There were b businesses in the DBA at the beginning of this year. Which function best models the total number of businesses, y, the DBA plans to have as members x years from now?

A) $y = nx + b$

B) $y = nx - b$

C) $y = b(n)^x$

D) $y = n(b)^x$

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The members of a city council wanted to assess the opinions of all city residents about converting an open field into a dog park. The council surveyed a sample of 500 city residents who own dogs. The survey showed that the majority of those sampled were in favor of the dog park. Which of the following is true about the city council's survey?

A) It shows that the majority of city residents are in favor of the dog park.

B) The survey sample should have included more residents who are dog owners.

C) The survey sample should have consisted entirely of residents who do not own dogs.

D) The survey sample is biased because it is not representative of all city residents.

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Which of the following is an equivalent form of

$(1.5x - 2.4)^2 - (5.2x^2 - 6.4)$?

A) $-2.2x^2 + 1.6$

B) $-2.2x^2 + 11.2$

C) $-2.95x^2 - 7.2x + 12.16$

D) $-2.95x^2 - 7.2x + 0.64$

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Ice Cream and Topping Selections

		Flavor	
		Vanilla	Chocolate
Topping	Hot fudge	8	6
	Caramel	5	6

The table above shows the flavors of ice cream and the toppings chosen by the people at a party. Each person chose one flavor of ice cream and one topping. Of the people who chose vanilla ice cream, what fraction chose hot fudge as a topping?

A) $\dfrac{8}{25}$

B) $\dfrac{5}{13}$

C) $\dfrac{13}{25}$

D) $\dfrac{8}{13}$

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