

## iPhone sales - Opening exercise

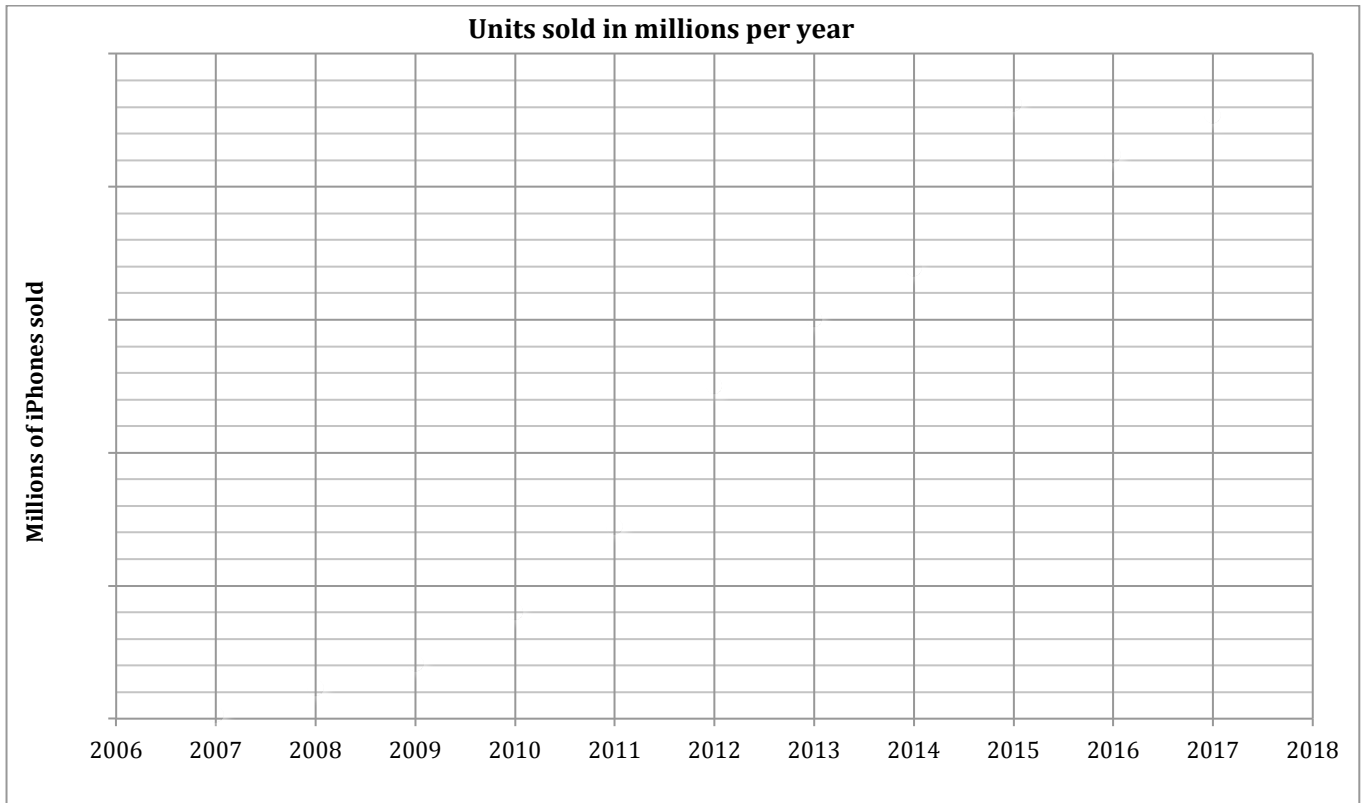
Each year since the original release of the iPhone in 2007, Apple has debuted a new iPhone in September. This year the phone will be the iPhone 8 and iPhone X. Millions of iPhone fans will flood stores and wait in lines to get their hands on the latest iPhone.

In the past, soon after the phone was released, Apple would release the number of iPhones that were sold on that opening weekend. Not anymore! Apple says that opening weekend sales numbers are limited by the number of iPhones that they have to sell ... not on how many people want them. So that opening weekend sales data no longer measures the success of their new product.

So we've decided to look at how many iPhones are sold, worldwide, in each of the 10 years that Apple has offered phones and see what the trends might look like for Apple's sales this year.

On November 7th, 2007, Apple released the original iPhone. By the end of that year 1,390,000 phones had been sold.

- ❖ Using the blank chart below make predictions as to how many iPhones were sold each year (you will need to figure out an appropriate range and scale of the millions of iPhones sold each year). Simply plot the points that represent your prediction, do not connect the points with a line.



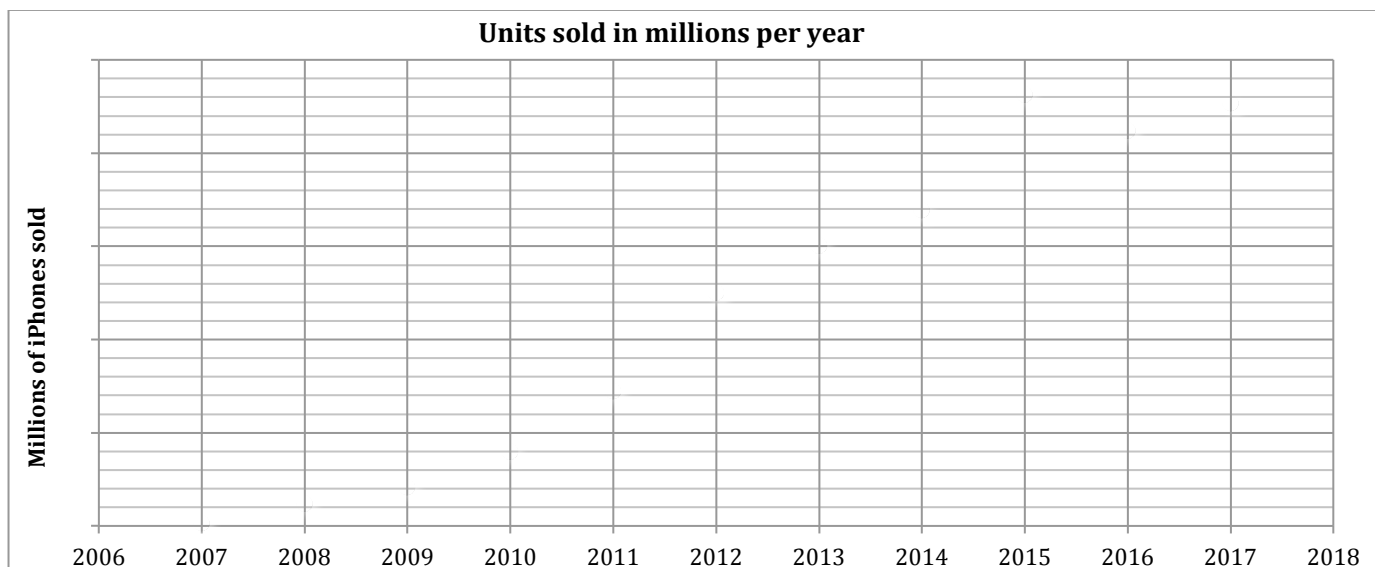
## iPhone sales (continued)

We found this data about worldwide iPhone sales:

Year	iPhone	Millions of units sold worldwide this year
2007	1	1.39
2008	3G	11.63
2009	3GS	20.73
2010	4	39.99
2011	4S	72.3
2012	5	125.04
2013	5C, 5S	150.26
2014	6	169.22
2015	6s	231.22
2016	6 and 7	211.88
2017 so far	7, 8, and X	170.08

Data from <http://www.statista.com/>

1. How many iPhones do you think will be sold by the end of 2017? Explain your reasoning.
2. Plot the data from the chart above and add your prediction for 2017 to the graph below. Do not connect your points with a line.



3. What do you notice about sales in 2016? Why might this have happened?
4. Assuming that Apple launches another new phone in 2018, how many units do you predict that they will sell during that year? Explain your reasoning and plot your prediction.
5. Can you model the yearly growth of iPhone sales with a trend line or curve? If so, draw that line or curve on the plot.
6. During the opening weekend in 2010 more than 5 million iPhones were sold, which represented about 12.5% of all iPhones sold that year. If the percent of iPhones sold in the opening weekend of 2017 is about the same, how many iPhones do you think will be sold during the iPhone 8 opening weekend?