

# MATHCOUNTS<sup>®</sup> Problem of the Week Archive

## Cyber Monday – November 30, 2015

### Problems

Cyber Monday is the Monday after Thanksgiving. Many online retailers offer discounts and promotions and it is considered to be the biggest online shopping day of the year. Cyber Monday sales have increased every year since 2005. The table shows the sales, in millions of dollars, for the years 2005 to 2014. Between which two years was the smallest percent increase in sales seen? What was the percent increase? Express your answer to the nearest whole number.

Year	Sales (millions)
2005	\$484
2006	\$610
2007	\$730
2008	\$846
2009	\$887
2010	\$1028
2011	\$1251
2012	\$1465
2013	\$1735
2014	\$2038

It is estimated that on Cyber Monday in 2014, shoppers spent an average of \$125 per order. If this estimate is correct, how many orders were placed?

This year for Cyber Monday, analysts are expecting sales, once again, to increase from the previous year, but they believe there will be a decrease in the number of orders placed. In 2015 if sales increase 13% and the number of orders decreases 4%, compared to 2014, based on the previous problems, how much more will be spent, on average, per order in 2015? Express your answer to the nearest whole number.