

Life situations represented through graphs



**ASSIGN
BUSTER**

I would like to present the graph for the monthly cost of electricity in a house.

The amounts paid in electricity bills for the last 10 months are plotted in the graph which has been prepared using MS Excel graph function. The graph for the variation of cost of electricity per month is shown below: Graph 1.

Monthly Electricity Bill amount paid in the House for the last 10 months (in \$)

The graph shows the monthly cost of using electricity in the house from

August 2010 to May 2011. The lowest bill amount paid was \$28 in

September 2010 and the highest amount paid was \$49 in December 2010.

The total amount paid in electricity bills for the last 10 months was \$384,

meaning that the average amount of electricity bill per month was $\$384/10$

$= \$38.4$. During 5 of the last 10 months, the electricity bill was above

average of \$38.4 and for the remaining 5, it was below the average amount.

In terms of trend, the monthly electricity cost for the house increased from

October 2010 onwards and reached a maximum of \$49 in December 2010

before starting to decrease again. It has been decreasing since then. The

graph is non-linear as no three successive points lie on the same line;

although, the overall graph looks like a half sine curve with a clear peak

during December 2010 and January 2011. The months of December 2010 to

February 2011 had very high electricity bills compared to other months. In

other words, the winter months had much higher electricity bills compared to

spring and fall. This means that the consumption of electricity is rather

seasonal. This seems natural as there is no heating required in the house

during spring and fall, while the heating appliances are kept on during the

winter months, which increases the consumption of electricity. It is likely that

this trend would continue over the years although the peaks and the troughs

in the graph can be brought lower by using energy efficient devices.

<https://assignbuster.com/life-situations-represented-through-graphs/>

References Glencoe. (n. d.). Chapter 13-5: Linear and non- linear functions .
Glencoe Prealgebra Study Guide. Accessed 15 June 2011. http://www.glencoe.com/sec/math/prealg/prealg03/study_guide/pdfs/prealg_pssg_G112.pdf
Virginia Tech Department of Mathematics (n. d.). Unit 5: Graphing. Math 1015 Lesson Pages. Accessed 15 June 2011. <http://www.emporium.vt.edu/math1015/1015/Resources/lessons/>
Reeve, Brad. (n. d.). Do Your Electric Bills Rise During the Winters? Kotzebue Electric Association. Accessed 15 June 2011. <http://www.kea.coop/articles/do-your-electric-bills-rise-during-the-winter/>
NC State University. (n. d.). Graphing With Excel. Accessed 15 June 2011. <http://www.ncsu.edu/labwrite/res/gt/graphtut-home.html>