

CHOOSING A CELL PHONE

Name: _____

You have finally talked your parents into letting you get a cell phone! Of course, they want you to do the research. You checked 3 separate companies.

- "B Mobile" charges \$20 per month plus 4¢ a minute.
- Pextel charges \$30 per month plus 2¢ a minute.
- Orizon charges \$40 per month with unlimited minutes.

Which company should you choose?

We can show the solution to this problem by creating a chart on Excel.

Minutes	"B Mobile"	Pextel	Orizon
0	20	30	40
50	22	31	40
100	24	32	40
150			

Part 1:

Directions

1. Log on.
2. Open Excel.
3. Enter the data in a table like the one above. Make your table go from 0 to 600 minutes (you can use intervals of 50 minutes).
4. Select (Highlight) the entire t-table.
5. On the tool bar at the top, click Insert.
6. Click Chart. This puts you in Step 1 of the Chart Wizard.
7. Under "Chart Type" click XY Scatter.
8. Under "Chart sub-type" click the top box in the second column.
9. Click Next - this puts you in Step 2.
 - Click "Series in: Columns"
10. Click Next - this puts you in Step 3.
 - Click the Titles tab, then enter a name for the Chart Title, then names for the x- axis and the y- axis.
 - Click on the Gridlines tab and check:
 - x-axis: major and minor gridlines
 - y-axis: major gridlines
11. Click Next - this puts you in Step 4.
12. Click Finish.
13. You can make the graph bigger by dragging diagonally on a corner.
14. Select the x-axis (by clicking on it). Right click, then select "Format axis". Click on the Scale tab; change "minor units" to 50.

Questions

1. When do the 3 companies charge the same amount? How do you know?
2. When is each company the better choice? Explain how you can use the graph to answer this question.
3. Based on the data you collected on your own phone use, which company would you choose? Why?

Part 2:

Directions

You can have Excel find the rule for your chart and graph.

1. Click on your graph.
2. Click on Chart on the Toolbar.
3. Click on Add Trendline. Then click on "B" Mobile. Click on Options. Check Display equation on chart. Click OK.
4. Repeat the same steps for Pextel.

Questions

1. Copy the equation for each company.

"B" Mobile:

Pextel:

Orizon:

2. What does "y" represent in the equations? What does "x" represent?

3. Where does the cost per minute show up in the equations?

4. Where does the monthly fee show up in the equation?

5. How much would each company charge you for 1,000 minutes in one month? Show and explain how you got your answers.

* 6. **Be sure to PRINT both the spreadsheet and the chart for this project.**