

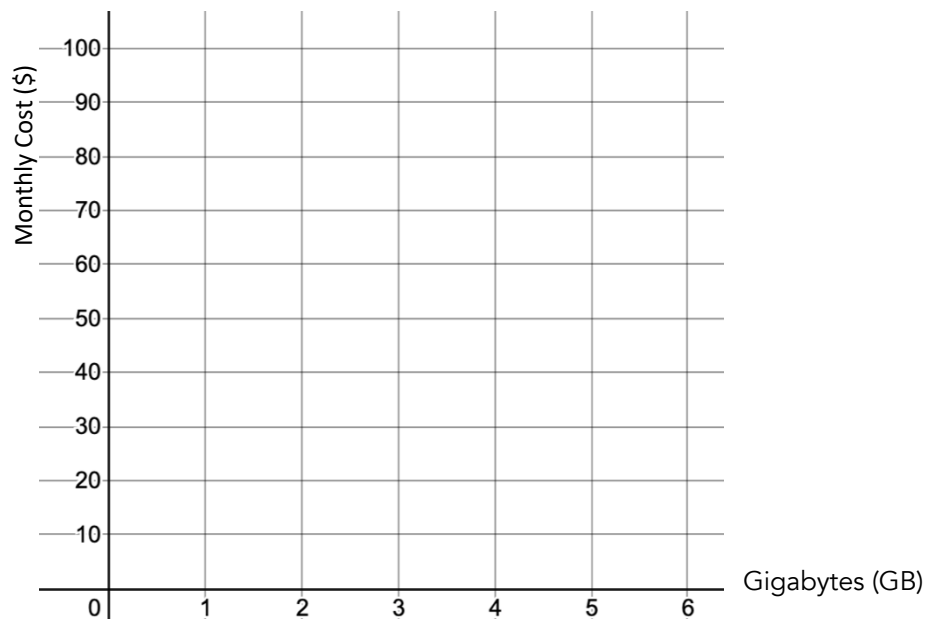


How Much do I Pay for 4G Data?



Cell phone plans used to charge by number of minutes and texts sent. Now most phone plans have unlimited talk and text but offer different amounts of data at various costs. Today we'll look at some pricing structures for phone plans.

1. What factors play a role in choosing a cell-phone service provider and picking a plan?
2. Metro® by T-Mobile offers an unlimited text and talk option with 2GB of data per month for \$30. If you exceed the 2GB, you pay a rate of \$10 per GB for each additional GB.
 - a. What would the monthly phone bill be for a person that used 1.7 GB of data?
 - b. What would the monthly phone bill be for a person that used 3.5 GB of data?
3. Sketch a graph of the monthly cost of this phone plan based on the number of gigabytes of data used.



4. Write a rule that gives the monthly cost of using x GB of data.

Lesson 3.3 – Piecewise Functions

QuickNotes

Check Your Understanding

Pizza Palace is offering a promotion. The cost of a large pizza (in dollars) as a function of time (measured in days since February 10th) can be described by the function

$$C(t) = \begin{cases} 7 & 0 \leq t \leq 3 \\ 7 + t & 3 < t \leq 8 \\ 18 & 8 < t \leq 28 \end{cases}$$

1. What is the price of pizza on Valentine's Day (February 14th)?
2. On what day(s) should you go to Pizza Palace to get the best deal? How do you know?
3. Find $C(9) - C(8)$. Interpret the result in the context of this problem.
4. What is the significance of the domain restriction $0 \leq t \leq 28$?
5. Sketch a graph of C . Label both axes.

