

# Family Letter

Dear Student and Family Members,

Chapter 5 introduces linear relationships—where a change in one variable results in a fixed change in another variable. In class we will describe situations, make tables of data about the situations, graph the data, and write linear equations that describe the relationships. Here is an example of one kind of problem we will be working with. See if you can solve any parts of the problem before we start the chapter.

Three telephone companies have long-distance rates:

Company	Rate
Easy Access Company	\$1.00 for the first minute; 25 cents per minute thereafter
Call Home	20 cents per minute
Metro Communication	\$3.00 for the first minute; 15 cents per minute thereafter

Here are some questions we will consider:

- For each company, calculate the amount due for calls lasting 5 minutes, lasting 15 minutes, and for two other lengths of time. Show your results in a table.
- Is there any company that is always the best buy? If so, which one? If not, tell when you would use each company to get the best buy.

We will also learn to predict which equations have graphs that are straight lines by looking at tables or algebraic rules. Then, from a graph or table, we will be able to determine the slope and y-intercept.

**Vocabulary** Along the way, we'll be learning about these new vocabulary terms:

<b>coefficient</b>	<b>rate</b>	<b>variable</b>
<b>constant term</b>	<b>slope</b>	<b>velocity</b>
<b>linear relationship</b>	<b>speed</b>	<b>y-intercept</b>
<b>proportional</b>		

## What can you do at home?

During the next few weeks, your student may show interest in linear relationships or in different ways linear equations appear in the world outside of school. Together, you might enjoy using linear equations to calculate payments for jobs using different hourly rates.

