Cell Phone Activities Review Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Senior Math Applications Hr\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Use this scenario for #1-5.*** *You sign a contract for a cell phone. Your contract states that you pay $35.00 per month for the first 350 minutes and then you pay $0.10 per minute for all minutes after 350.*

1. How much would the bill be if you talk for 246 minutes (1 pt.)?
2. How much would your monthly bill be if you talk for 0 minutes (1 pt.)?
3. How much would your monthly bill be if you talk for 456 minutes ( 1 pt.)
4. Sketch a graph of the contract for minutes ranging from 0 to 600. Use an appropriate scale on your graph.

Title (1 pt.)

Naming & Labeling the x/y-axis (2 pts.)

Graph (2 pts.)



1. Write a piecewise rule for the situation and state the domain and range for this function.

Domains (1 pt.) Ranges (1 pt.) Equations (2 pts.)

***Use this scenario for #6-15.*** *You work at a store in Lakeside Mall. Each store manager gets a cell phone to communicate with the managers at other stores. Your boss asks you to examine the company’s cellular service. The cell phone company charges $0.12 per minute, in addition to a monthly fee. You can’t find any statement about the monthly fee, but you did find last month’s bill for one of the phones. The bill was $41.88 for 224 minutes of calls.*

1. How much did the 224 minutes cost ( 1pt.)?
2. How much is the monthly fee for the plan (2 pts.)?
3. Create an equation to model the cost of the plan based upon the number of minutes of use (2 pts.).
4. What is the slope of the equation (1 pt.)?
5. Explain what the slope represents in terms of the scenario (1 pt.).
6. What is the constant term (1 pt.)?
7. What does the constant term represent in terms of the scenario ( 1 pt.)?
8. Create a table to represent the situation.

|  |  |  |
| --- | --- | --- |
| Minutes (m) | Cost for “m” minutes (1 pt.) | Total Bill (1 pt.) |
| 0 |  |  |
| 10 |  |  |
| 20 |  |  |
| 30 |  |  |
| 40 |  |  |
| 50 |  |  |
| 60 |  |  |
| 70 |  |  |
| 80 |  |  |

1. Graph the data from the table above on the graph provided.

Title (1 pt.)

Naming & Labeling the x/y-axis (2 pts.)

Graph (2 pts.)



1. If the managers have a $50 allowance for their cell phones, how many minutes are they allowed to use (2 pts.)? **Show your work algebraically here**