**BUILDING A MORE COMPLICATED FORMULA**

Each month you talk on the phone for 400 minutes, send 500 text messages, and use 4 gigabytes of data. If you currently pay $119.99 per month, could you save money on this plan?

**Save big on cell phone service for only $39.99 per month!**

Includes 300 phone minutes, 300 text messages, and 3 gigabytes of data.

Additional costs:  $0.35 for each additional minute, $0.05 for each additional text and $12 for each additional gigabyte.

**Make a table of what you know:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Base cost** | $39.33 per month | | |
| **Included:** | **Minutes** | **Texts** | **Data (Gb)** |
| 300 | 300 | 3 |
| **Additional costs per:** | **Minute** | **Text** | **Data (Gb)** |
| $0.35 | $0.05 | $12 |

**Write the math expression in words:**

Total cost =

Base Cost + Cost of Minutes over 300 + Cost of Texts over 300 + Cost of Data over 3

**Choose letters to represent the values that vary:**

M = number of minutes over 300

T = number of texts over 300

D = amount of data over 3

**Translate the words to math:**

Base Cost + Cost of Minutes over 300 + Cost of Texts over 300 + Cost of Data over 3

39.99 + 0.35(M) + 0.05(T) + 12(D)

**Figure out the values for the letters:**

M = your usage – 300 = 400 – 300 = 100

T = your usage – 300 = 500 – 300 = 200

D = your usage – 3 = 4 - 3 = 1

**Substitute into the formula and do the math:**

Total cost = 39.99 + 0.35(M) + 0.05(T) + 12(D)

Total cost = 39.99 + 0.35(100) + 0.05(200) + 12(1)

Total cost = 39.99 + 35 + 10 + 12

Total cost = 96.99

**Make sure your answer makes sense and summarize what you have found including your decision:**

$96.99 seems like a reasonable amount for a monthly cell phone charge with a   
base cost of $39.99.

This is less expensive than my current plan, so I will save money if I switch!