**Unit: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Topic: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Course: \_\_\_\_\_\_ Date: \_\_/\_\_/\_\_\_\_**

**Standards: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Source: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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|  | Statement(s) | Question(s) |
| Setting up the Problem | Ask a student to read the problem.Possibly this video…..it makes me laugh<http://www.youtube.com/watch?v=oivWKzaVOO4>  |  |
|  |  |  |  |
|  | Anticipated Strategies/Misconceptions | Who | Questions |
| Monitoring Student Work | TABLE: |  | -What is the meaning of the x?-What patterns are you noticing in your table?-What type of function is plan A, plan B?-Do we see where one plan is better than the other in the table? If so, where?- What does the f(x) represent in the table? What do the negative values mean? |
| GRAPH: |  | -What does the point of intersection tell us? -Why is happening before the intersection point, after the intersection point?-What does the x represent?What does the f(x) represent? |
| EQUATION: **x= voice minutes** **y = text messages****Plan A:** .05x + 15y = 25y = -1/3x + 500/3f(x) = -1/3x + 500/3**Plan B:** .10x + .05y = 25y = -2x + 500f(x) = -2x + 500 |  | -What do the coefficients represent?-Does it matter which variable is the input (x) and which is the output(y)? |
| Guess and Check:**Voice ONLY****Plan A:** 500 minutes**PlanB:** 250 minutes**Text ONLY****Plan A:** 166 messages**Plan B:** 500 message |  | -What are the benefits of each plan?-What happens when a person only talks on the phone?-What happens when a person only text messages? |
| Misconceptions |  | -making one equation with all information- turning the problem into a systems only and finding just the point of intersection |
| Non starters |  | -What do you know about the problem?-What question are we trying to answer?-Can you draw a picture?-Might a table help you get started? What are our variables? |
|  |  |  |  |
|  | Parts of Discussion | Questions/Statements |
| Managing the Discussion | Launching the Discussion | What was unclear about the problem?What did you do first when working on the problem? |
| Eliciting Student Strategies | Joe, would you be willing to start us off?Can you repeat that?Can you explain how you got your answer?Walk us through your steps. |
| Focusing on Mathematical Ideas | Can you explain why your equation matches the data?How is Joe’s method similar to Sue’s method?How is Sue’s equation similar to Tom’s? Are they equivalent? How can we tell? |
| Encouraging Interactions | What do others think?Do you agree or disagree with Amy’s strategy?Would someone be willing to repeat what Tom just said?Allison, will you add to what Tom just said? |
| Concluding the Discussion | Tomorrow we will continue our exploration of linear patterns beginning with the tiling pattern from today. |
| Post Lesson Notes |  |