Timed Agenda LAP 6 Day 1

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| Time | What Students Will Do | What Teacher Will Do | Rationale |
| 10:36 – 10:45 | * Enter room
* Do starter
* Share answers
 | * Pass out calculators

Starter: A football field is approximately 1.2 x 102 yards by 5.33 x 101 yards. To find the area of the football field, Miss Shepard plugged(1.2 x 102)( 5.33 x 101) into her calculator. Mr. Strogoff didn’t have a calculator so he did the following: (1.2 x 102)( 5.33 x 101)= (1.2 x 5.33)(102 x 101)= 6.396 x 103 yards2.Did they get the same answer?* Call on volunteers to share
 | This will help students start think about using exponent addition to multiply numbers in scientific notation. By asking students to compare the answer from a calculator to the answer found by manipulating the coefficients and exponents, they will start to convince themselves of the validity of the manipulation, even if they don’t yet fully understand it. |
| 10:45 – 10:52 | * Look through old work and consult with group
 | * After we reach the consensus that they did get the same answer, ask them why what Mr. Strogoff did works.
* Tell them to take a few minutes and brainstorm with their tables
	+ First hint: look back at your exponent rule notes and worksheets
	+ Second hint: look at the commutative property rule
* Circulate
 | By not telling students why Mr. Strogoff’s manipulation works, the onus is on them to think for themselves and reference past work. I notice that my students often do not look back at previous assignments for help, so this is one way of encouraging them to do that. |
| 10:52 – 11:05 | * Share out
 | * Ask groups to share their thinking and explain their conclusions to each other
* Emphasize that it’s just the commutative property- you can move numbers around when you multiply them to make it easier. Show easy examples if necessary, like

(2 x 4)(5 x 3). | Students might struggle to make sense of this, but figuring out how to apply an exponent rule to a new scenario is good math practice for them. |
| 11:00- 11:28 | * Complete worksheet
* Extension: Ants or Pennies problem
* Hand in worksheet at end of period
 | * Hand out worksheet
* Circulate
* Collect worksheet at end of period
 | I will assess understanding based on my interactions with students as they work on the assignment, and based on the progress I see when they turn it into me at the end of the period.  |