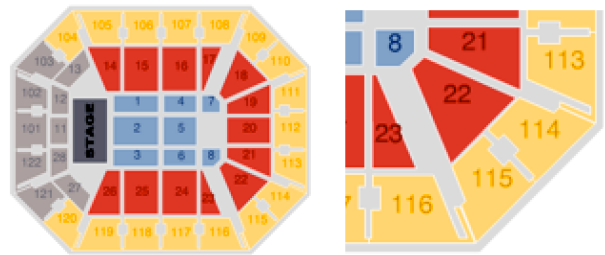In the arena at Mohegan Sun, the seats in many of the sections follow a pattern. Section 22 has 7 seats in row one, 8 seats in row two, 9 seats in row three, etc. It has 16 rows all together. Answer the following questions, using GeoGebra to help. Explain each answer.

1. How many seats are there all together in section 22?

2. How many rows have 17 or more seats?

3. Which row are you in if there are 84 people in your section in front of you?

Open a new GeoGebra window. Choose Spreadsheet & Graphics. Build your lists of rows and seats. Use ⊕ to scale the window for your data. Highlight the rows and click on {1,2} to make a set of points.
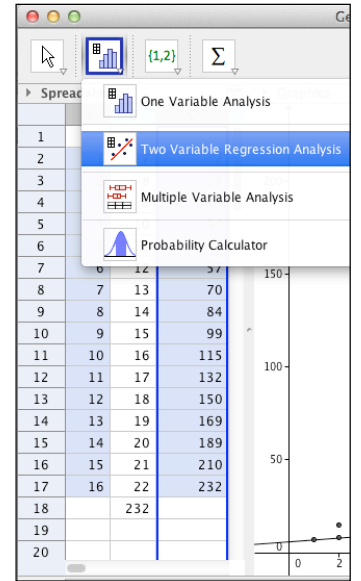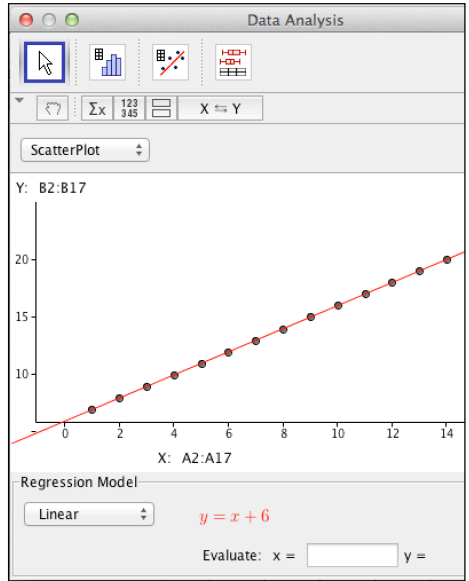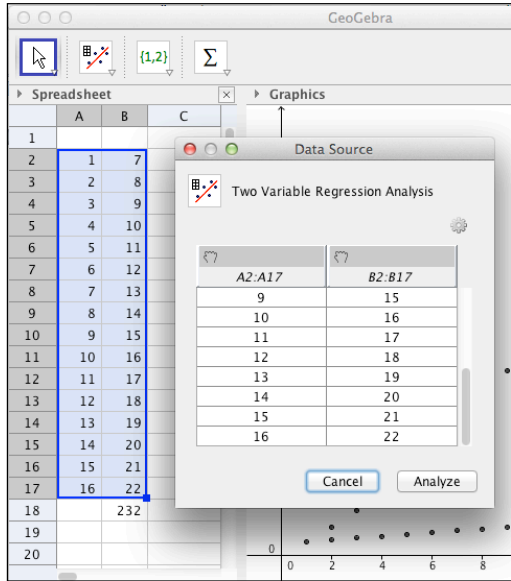
Highlight the data to sum, and click Σ. For a running total, we need a formula.

	2	1	7	7
	3	2	8	=C2+B1

We can now answer the questions that were asked!

If you wanted to find the equations that model these points, you could use the regression tools. We'll take a quick look at those on the next page.

	A	B	C
1			
2	1	7	7
3	2	8	15
4	3	9	24
5	4	10	34
6	5	11	45
7	6	12	57
8	7	13	70
9	8	14	84
10	9	15	99
11	10	16	115
12	11	17	132
13	12	18	150
14	13	19	169
15	14	20	189
16	15	21	210
17	16	22	232
18		232	
19			
20			

Highlight the rows and click on to get the Regression Analysis tool. Choose Analyze, then Linear. Repeat for the sums, choosing polynomial.

Many other statistical measures are available in the Data Analysis Pane. (Interesting residuals, eh?)