UC San Diego Extension

Advanced Web Analytics:

Harnessing the Predictive Power

Winter 2016

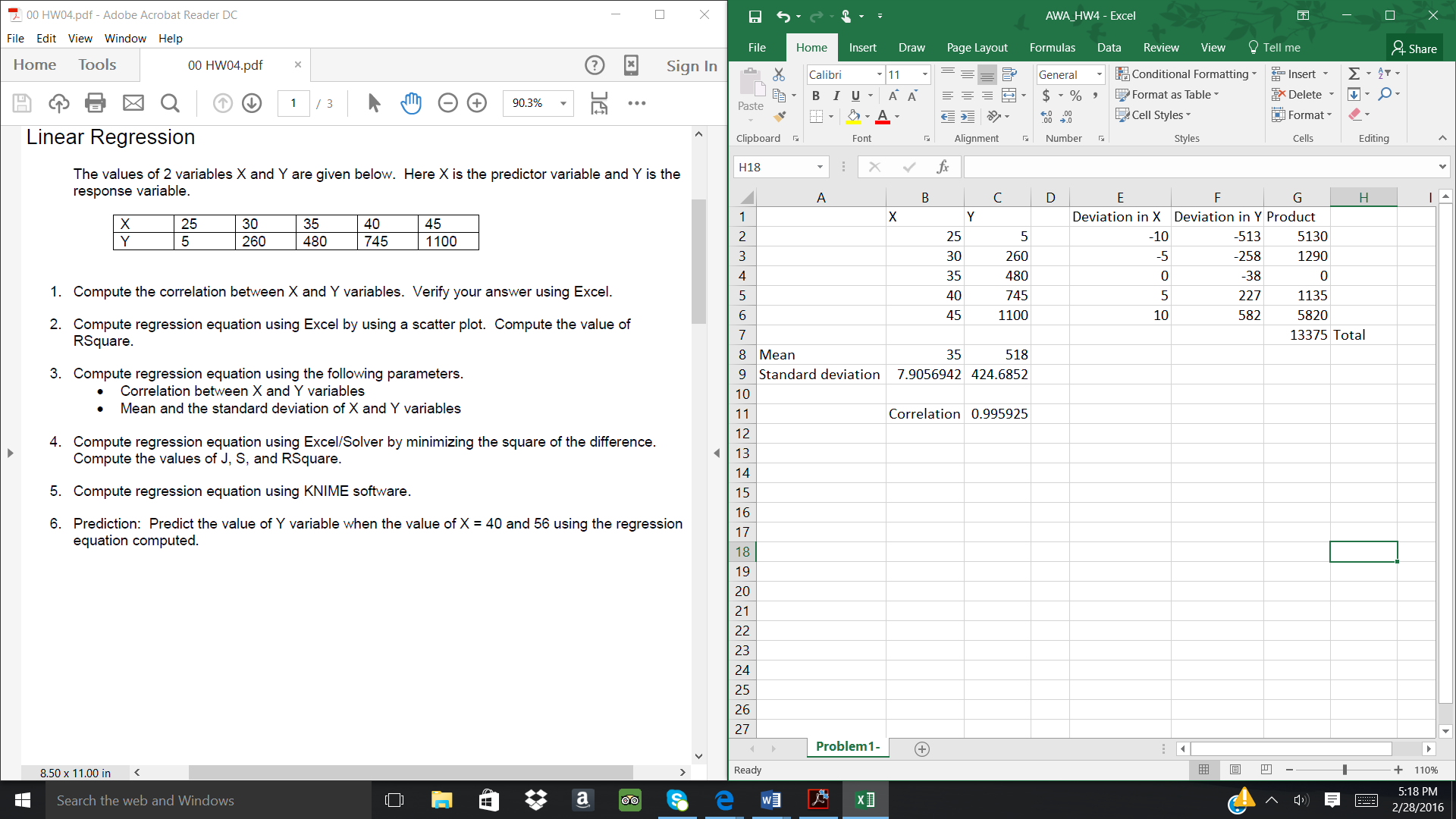
Homework#4

**Linear Regression**

1.

Via computation:

Via Excel:



2.

3.

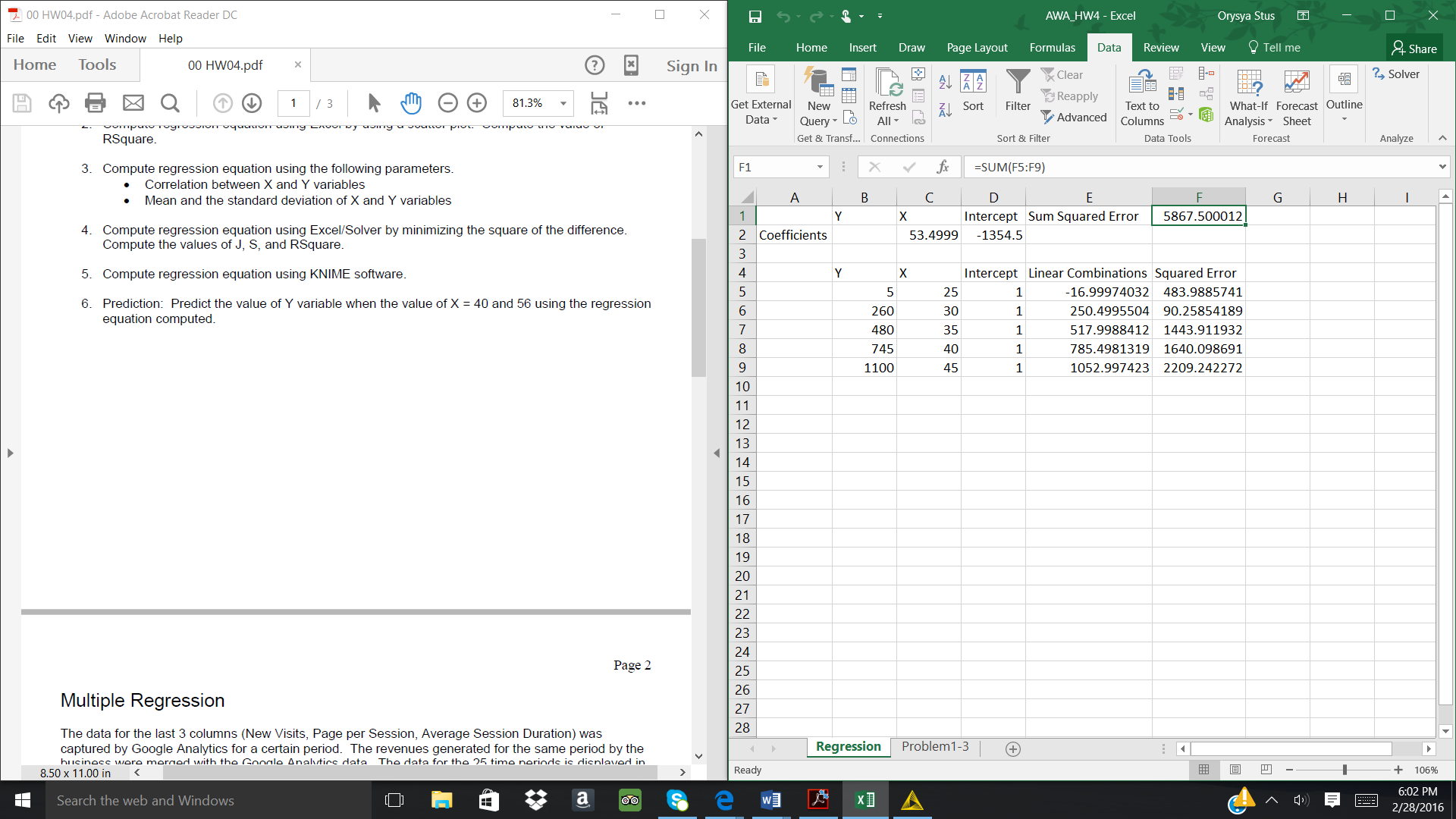
Via computation:

y = bx + a

y = 53.45x -1353.92

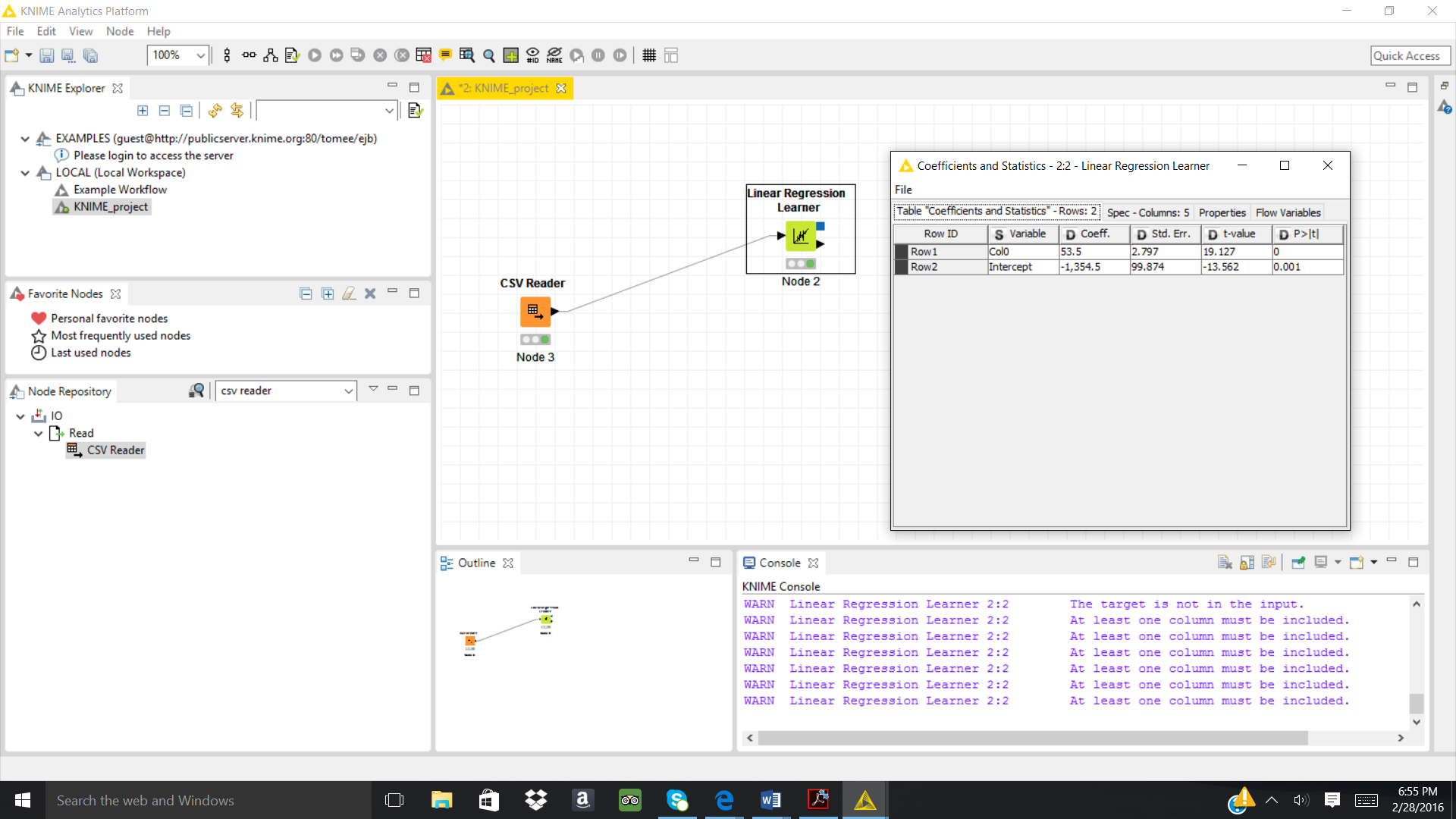
4.

Finding regression equation using Excel/Solver:



5.

Finding regression equation using KNIME software:



6. Using the equation: y = 53.5x – 1354.5, then plug & chug:

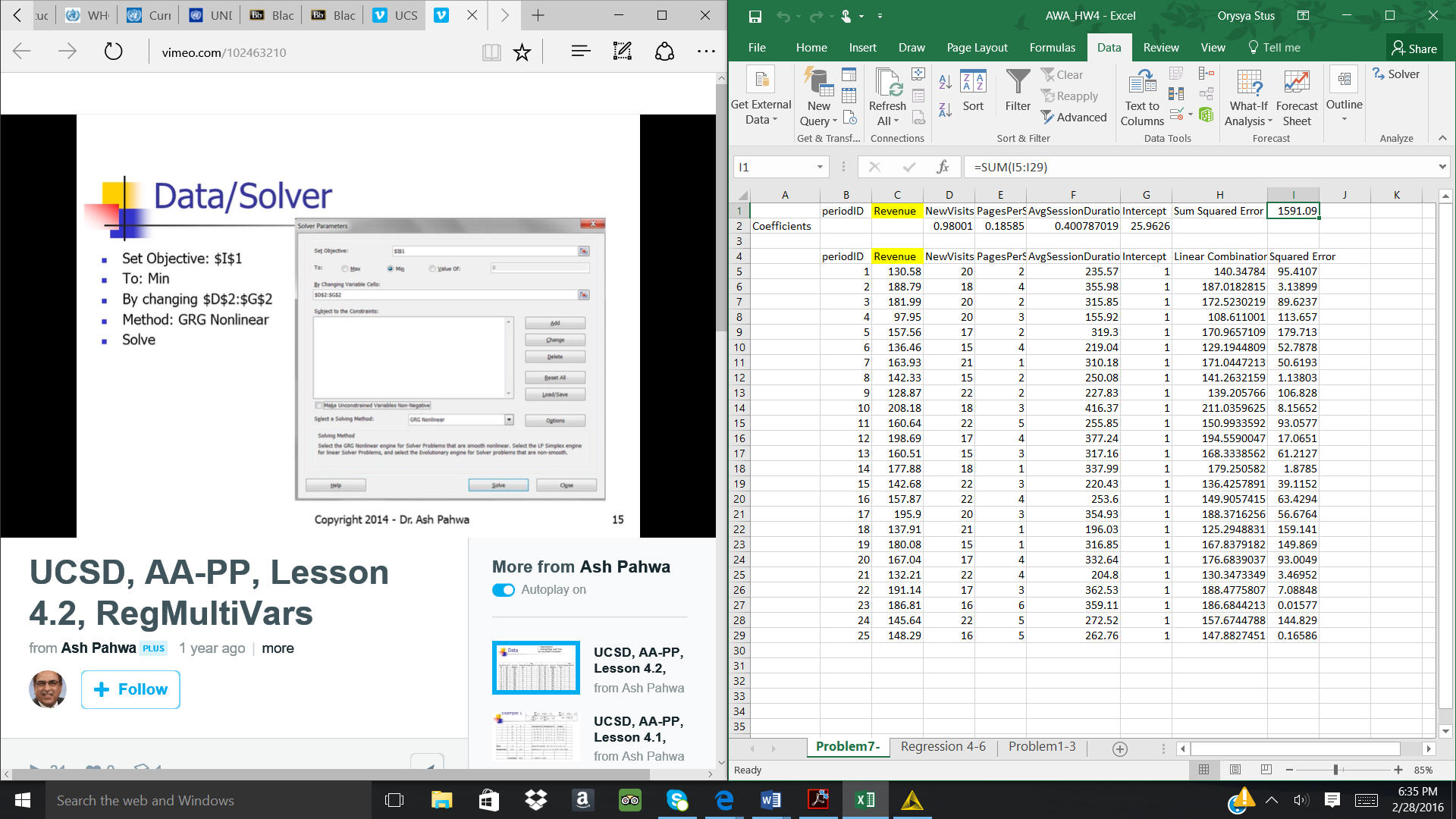
X = 40 y = 785.5

X = 56 y = 1641.5

**Multiple Regression**

7.

Finding regression equation using Excel/Solver:

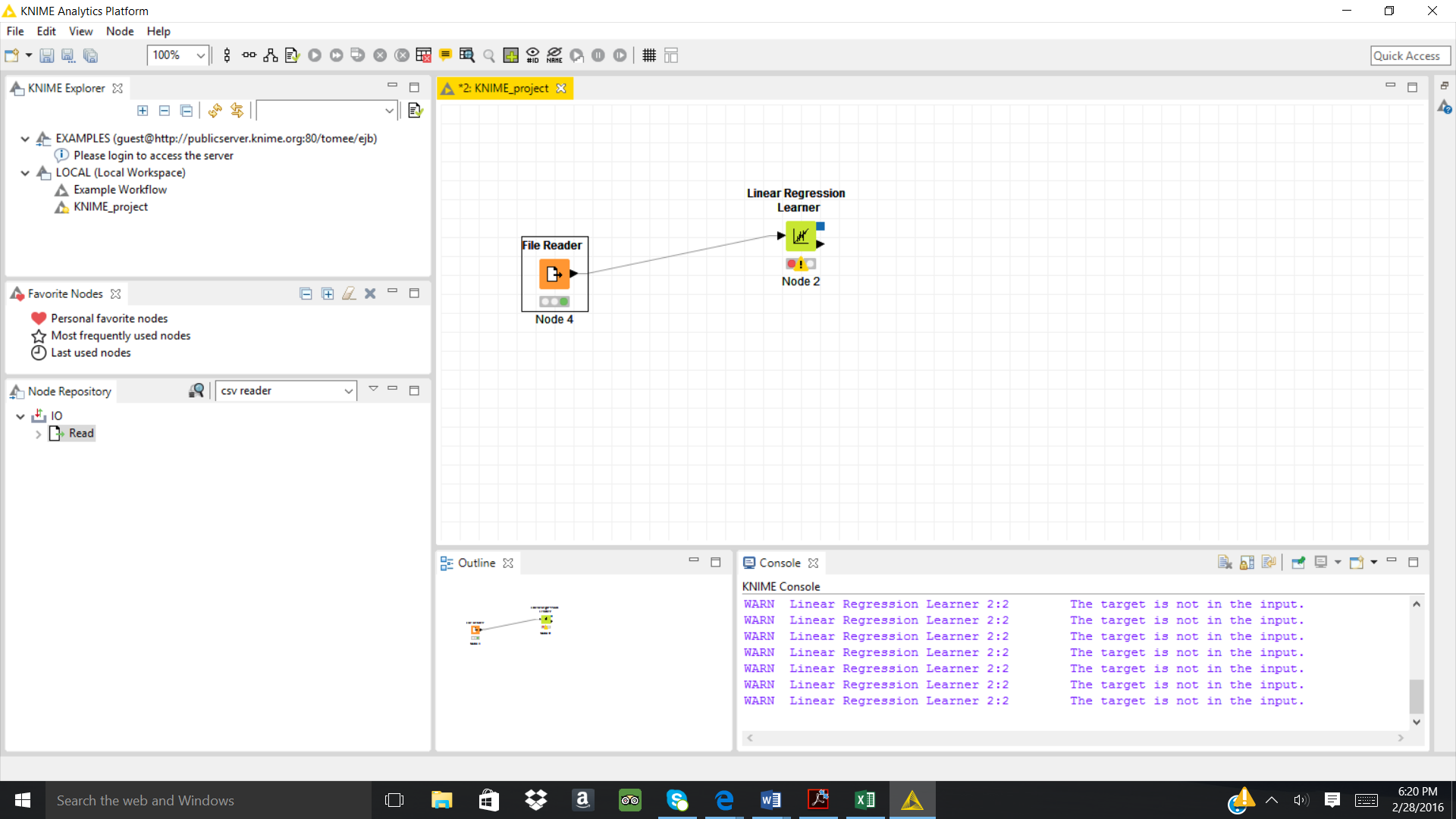


Y = 0.98001\*NewVisits + 0.18585\*Pages/Session + 0.40078\*AvgPageLoadTime +25.9679

RSquare = 0.9083

8.

Finding regression equation using KNIME:



9. Using the equation, then plug & chug:

y = 0.98001\*NewVisits + 0.18585\*Pages/Session + 0.40078\*AvgPageLoadTime +25.9679

New Visits = 32, Page/session = 7, AvgPageDuration = 457 then Revenue:

Revenue = y = 0.98001\*(32) + 0.18585\*(7) + 0.40078\*(457) +25.9679 = $241,788