

# #12 Revised SOLUTION

12.

L	Year	# of Students
0	1960	190
10	1970	200
20	1980	230
30	1990	280
40	2000	350
50	2010	440

Lin Reg  $y = ax + b$

$$y = 5x + 156.7$$

$$r^2 = 0.921$$

Quad Reg  $y = ax^2 + bx + c$

$$y = .1x^2 + 0x + 190$$

$$y = .1x^2 + 190$$

$$r^2 = 1$$

The Quadratic model fits the data better because  $r^2$  is closer to 1.

\*  $1.3E-12$  is the calc's sci notation for  $1.3 \times 10^{-12}$  which is  
 ,0000000000013  
 OR  
 0