

**Chapter PI 11**  
**APPENDIX A**  
**Regression Formula for Calculating Significant Discrepancy Scores**

**Information needed for Calculation:**

IQ/Ability Score = \_\_\_\_\_ SD of IQ/Cognitive Test = \_\_\_\_\_(SDi)  
 Achievement Score = \_\_\_\_\_ SD of Achievement Test = \_\_\_\_\_(SDa)  
 Correlation between tests = 0.\_\_\_\_\_(r)\*

**Formula:**

Expected Achievement = (SDa/SDi)r(IQ-100)+100 = \_\_\_\_\_

Discrepancy = Expected Achievement – Obtained Achievement Score =

SD Discrepancy =  $SDa \sqrt{1-r^2}$  =

**Cut-off:**

Discrepancy / SD Discrepancy =

If number is greater than 1.75, there is a significant discrepancy between achievement and ability scores

\* If correlation between tests is unknown, use .62

When the test publisher provides tables for significant differences between ability and achievement scores (such as with the Weschler Intelligence Scale for Children– 3 and the Weschler Individual Achievement Test), these tables may be used in lieu of this formula. Cut-offs should be derived using a 1.75 Standard Error of Estimate (SEe) criterion so that the difference between expected and obtained scores in the bottom 4% of the distribution meet the standard for a significant discrepancy (i.e. 1.75 SEe units below the expected score).