



Thommen’s Timely Technology Tips “It’s All Relative” Grading Math Explained

I’m often asked, “How do you enter ½ points when scoring an online test?” My response is to avoid ½ points as ANGEL Assessments do not support fractional point scores for individual questions. Instead, I recommend setting the scoring to 2 points per question and awarding 1 point for a partially correct answer; this will have the same overall effect on the test score and avoid the use of fractional points.

The concept of relative weight applies to scores, category weights and overall weights found in all gradebooks (i.e. manual, electronic, percentage weighted or points based). The score or total points applied to an item in a gradebook matters only in its relationship to other scores in the gradebook.

The Math of Grading an Assessment

Example: A test has 33 questions, each equaling one point, and the instructor would like to award a student 30½ points when one answer is judged to be partially correct.

If a student could receive a score of 30½ their percentage score would be 92% (30½/33), but an ANGEL assessment will not allow a ½ point values to be awarded for a question.

If, however, 2 points are awarded per question for a total of 66 points, the student who scored 30½ would now accumulate a score of 61 for the test overall, which calculates to 92% (66/61), the same percentage.

Since ANGEL uses percentages to calculate all scores, the instructor could set the total points for the gradebook entry to 33 points and the correct point value of 30½ points (33*92%) would be then displayed in the gradebook.

Setting Weights in a Gradebook

To best understand the relative nature of weights/scores in a gradebook, let’s look at some examples. Each of the gradebooks illustrated below share the same categories/assignments, but the weights/scores are very different:

Gradebook 1	Gradebook 2	Gradebook 3
Quiz.....10	Quiz 20	Quiz.....50
Assignment10	Assignment..... 20	Assignment50
Midterm.....20	Midterm 40	Midterm.....100
Final60	Final..... 120	Final300
Total.....100	Total 200	Total.....500

Mathematically, all three gradebooks will produce exactly the same result. While the category/assignment weights look different, from a relative standpoint they share a common effect relative to the total. In all three instances, quizzes and assignments are each worth 10% of the grade, while the midterm is worth 20% and the final 60%. The actual number that a weight/score carries is not as important, as the weight’s/score’s relationship to the total.

This timely tip can also be found at:

ANGEL: Faculty Community Group > Content > Thommen’s Timely Technology Tips
http://www.lcc.edu/cte/resources/thommen_tips/

