

# Initial Gradebook Setup

## Gradebook Overview

<https://www.youtube.com/embed/AeSpzWyYDSs>

Categories

Weights

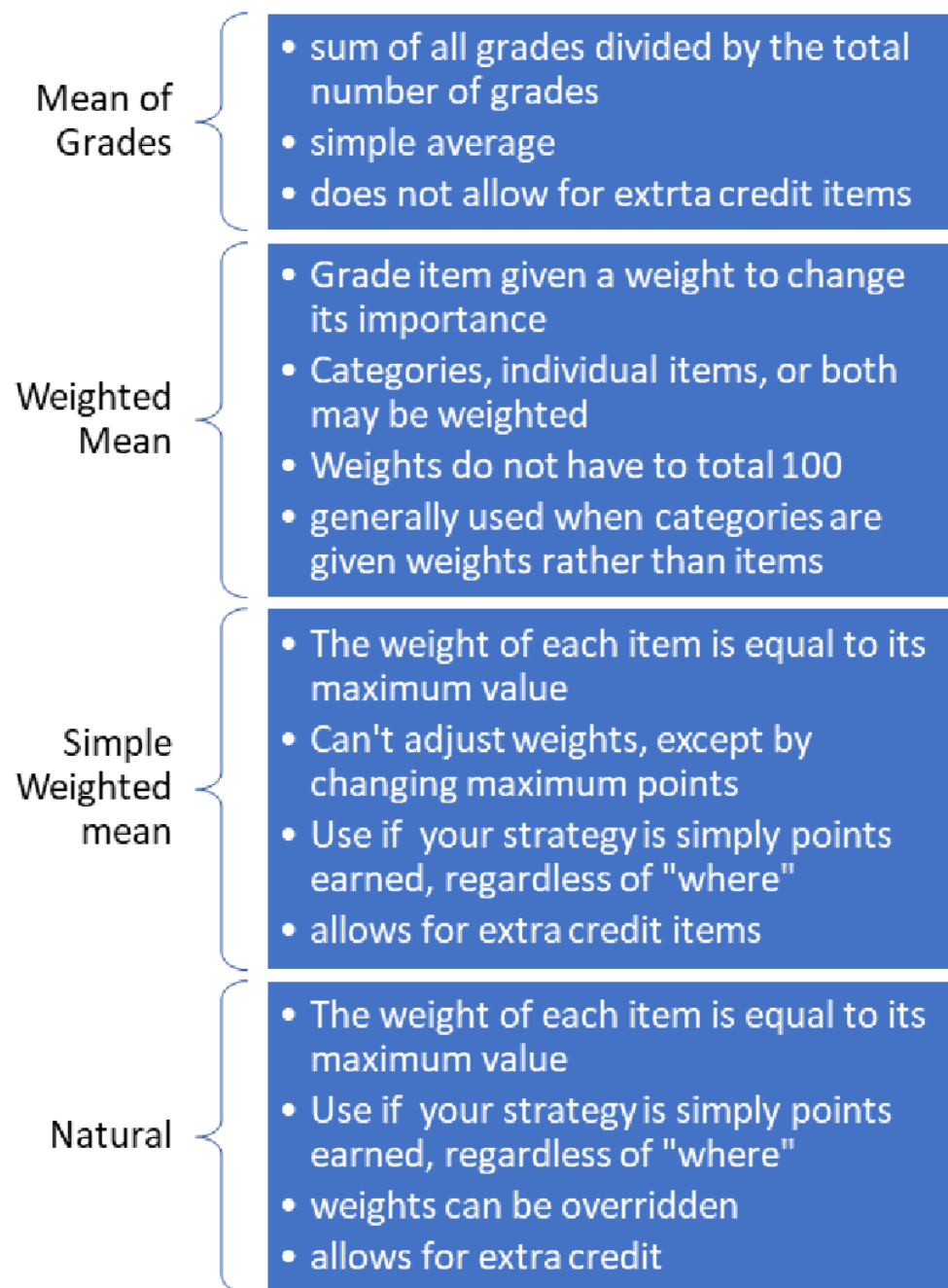
Moving Items

Grade Scale

## Aggregations

Moodle allows you to aggregate your grades in different ways, depending on how you want your grades calculated. There is a detailed list of aggregation strategies accompanied by the examples **and the mathematics** used to calculate grades. Whether an instructor employs the Moodle grade book or not, having a clear understanding of exactly how a grade is calculated is essential to assigning grades. Moodle allows for granular control of categories and weights in aggregating grades. Moodle's documentation goes into detail.

[Moodle Grade Aggregation](#)



## Example Calculations

	Raw Scores	Normalized Score
Assign 1	75/100	.75
Assign 2	35/50	.70
Assign 3	10/10	1
Assign 4	85/100	.85

All raw scores are first normalized to a value between 0 and 1:

$$\frac{\text{points earned}}{\text{points possible}}$$

## Mean of Grades

Simple average of normalized grades:

$$\frac{.75 + .70 + 1 + .85}{4} = .825$$

## Simple Weighted Mean

Normalized grade multiplied by weight, divided by sum of weights:

$$\frac{(.75 * 100) + (.70 * 50) + (1 * 10) + (.85 * 100)}{(100 + 50 + 10 + 100)} = \frac{205}{260} \approx 78.85$$

This is equivalent to:

$$\frac{\text{points earned}}{\text{points possible}}$$

## Natural

If the weights are not adjusted, the default weight for each item is the maximum points possible, and the calculations are identical to Simple Weighted Mean. Natural aggregation allows for weights to be overridden.

## Weighted Mean

Sample Grades

Category	Percentage	Weight	Category Subtotal
Daily Work	90%	30%	.90 * 30 = <b>27</b>
Participation	25%	10%	.25 * 10 = <b>2.5</b>
Tests	75%	50%	.75 * 50 = <b>37.5</b>
Final	65%	10%	.65 * 10 = <b>6.5</b>

First, Moodle calculates the percentage score in each category. You may select whichever aggregation method you prefer for each category. Categories may have different aggregation methods, which may be different from the overall aggregation method.

Final Calculation:

$$\frac{\text{Sum of Subtotals}}{\text{Sum of Weights}} = \frac{27 + 2.5 + 37.5 + 6.5}{30 + 10 + 50 + 10} = \frac{73.5}{100} = .735 = 73.5\%$$

The calculation may seem redundant because the weights add up to 100. Moodle does not require that weights add up to 100 in this method:

Category	Percentage	Weight	Category Subtotal
Daily Work	90%	1	.90 * 1 = <b>.9</b>
Participation	25%	1	.25 * 1 = <b>.25</b>
Tests	75%	3	.75 * 3 = <b>2.25</b>
Final	65%	2	.65 * 10 = <b>1.3</b>

$$\frac{\text{Sum of Subtotals}}{\text{Sum of Weights}} = \frac{.9 + .25 + 2.25 + 1.3}{1 + 1 + 3 + 2} = \frac{4.7}{7} \approx .6714 \approx 67.1\%$$

(Note: there was no attempt to use equivalent weights between the two examples)

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