



# How Does Blackboard Calculate Weighted Overall Grades?

## Table of Contents:

How Does Blackboard Calculate Weighted Overall Grades?..... 1

Table of Contents:..... 1

Example Grade Breakdown ..... 1

Example Grade Data for a Student..... 1

Grades Calculated by Category and Weight..... 2

Weighting Grade Columns Equally by Category..... 2

Weighting Columns Proportionally by Category..... 5

## Example Grade Breakdown

Category	Weight
Assignments (5)	50%
Tests (3)	30%
Final Exam (1)	20%
<b>Total</b>	<b>100%</b>

## Example Grade Data for a Student

Assignment Name	Points Earned	Points Possible
Assignment #1	15	20
Assignment #2	19	20
Assignment #3	18	20
Assignment #4	0	30
Assignment #5	17	40
Test #1	85	100
Test #2	125	200
Test #3	70	80
Final Exam	185	200

## Grades Calculated by Category and Weight

1. When you first set up a weighted Overall Grade column in Blackboard, you must select categories and weights (percentages) to calculate the Overall Grade.
  - a. In the example grade breakdown above, when you add categories to the weighted Overall Grade column, the Assignment category would be at 50%, the Tests category would be at 40% and the Final Exam category would be at 10%.
  - b. Furthermore, the grade columns for the 5 assignments would need to be in the Assignments category, the grade columns for the 3 tests would need to be in the Tests category and the grade column for the Final Exam would need to be in the Final Grade category
2. To calculate the weighted Overall or Final Grade, Blackboard takes each weight and converts that weight to the equal amount of points out of 100 points possible
  - a. In the example grade breakdown, all 5 assignments would be worth a total of 50 points, all 3 tests would be worth a total of 30 points and the Final Exam would be worth 20 points to equal 100 points possible.

## Weighting Grade Columns Equally by Category

1. By default, Blackboard calculates the grade columns where all the categories are set to be weighted equally. Let's look at how Blackboard would calculate the Overall or Final Grade in the example grade data for a student if all categories were set to be weighted equally.
2. First let's look at the Assignment category using the
  - a. Blackboard converts each assignment into a percentage (in decimal) by dividing points earned by points possible and adds all the percentages to receive a total percentage sum.

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Possible</b>	<b>Percentage (In Decimal)</b>
Assignment #1	15	20	0.750

Assignment #2	19	20	0.950
Assignment #3	18	20	0.900
Assignment #4	0	30	0.000
Assignment #5	17	40	0.425
<b>Total Percentage Sum</b>			<b>3.025</b>

b. Next the total percentage sum is divided by the number of assignments in the category (in this case 5) to calculate a new percentage. This percentage is then multiplied times the total possible number of points earned for the category (in this case 50% equals 50 points)

<b>Total Percentage Sum</b>	<b>Divided by Number of Assignments in Category</b>	<b>Equals New Percentage (In Decimal)</b>	<b>Times Weight of Category as a Whole Number</b>	<b>Equals Total Number of Points Earned</b>
3.025	5	0.605	50	30.25

3. Next let's look at the Tests category

a. Blackboard converts each assignment into a percentage (in decimal) by dividing points earned by points possible and adds all the percentages to receive a total percentage sum.

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Possible</b>	<b>Percentage (In Decimal)</b>
Test #1	85	100	0.850
Test #2	125	200	0.625
Test #3	70	80	0.875
<b>Total Percentage Sum</b>			<b>2.350</b>

b. Next the total percentage sum is divided by the number of assignments in the category (in this case 3) to calculate a new

percentage. This percentage is then multiplied times the total possible number of points earned for the category (in this case 30% equals 30 points)

<b>Total Percentage Sum</b>	<b>Divided by Number of Assignments in Category</b>	<b>Equals New Percentage (In Decimal)</b>	<b>Times Weight of Category as a Whole Number</b>	<b>Equals Total Number of Points Earned</b>
2.350	3	0.783	30	23.50

4. Finally let's look at the Final Exam category

- a. Blackboard converts each assignment into a percentage (in decimal) by dividing points earned by points possible and adds all the percentages to receive a total percentage sum.

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Possible</b>	<b>Percentage (In Decimal)</b>
Final Exam	185	200	0.925
<b>Total Percentage Sum</b>			<b>0.925</b>

- b. Next the total percentage sum is divided by the number of assignments in the category (in this case 1) to calculate a new percentage. This percentage is then multiplied times the total possible number of points earned for the category (in this case 20% equals 20 points)

<b>Total Percentage Sum</b>	<b>Divided by Number of Assignments in Category</b>	<b>Equals New Percentage (In Decimal)</b>	<b>Times Weight of Category as a Whole Number</b>	<b>Equals Total Number of Points Earned</b>
0.925	1	0.925	20	18.50

5. So how does Blackboard calculate the Overall or Final Grade

based on each new category total?

- a. Blackboard adds the Assignments Category Total (30.25 points) plus Tests Category Total (23.50 points) plus Final Exam Category Total (18.50 points) to equal the Overall or Final Grade (72.25 points or 72.25%)

<b>Category Name</b>	<b>New Total Earned</b>	<b>New Total Possible</b>
Assignments	30.25	40
Tests	23.50	30
Final Exam	18.50	20
<b>Total</b>	<b>72.25</b>	<b>100</b>
<b>Overall or Final Grade %</b>	<b>72.25%</b>	<b>100%</b>

## **Weighting Columns Proportionally by Category**

1. Blackboard can also calculate the grade columns where all the categories are set to be weighted proportionally. This means that the assignment/grade columns will each have their own proportional weight in the total points available for that category. Let's look at how Blackboard would calculate the Overall or Final Grade in the example grade data for a student if all categories were set to be weighted proportionally.
2. First let's look at the Assignment category
  - a. Blackboard sums the total points earned and total points possible for all assignments in the category.

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Possible</b>
Assignment #1	15	20
Assignment #2	19	20
Assignment #3	18	20
Assignment #4	0	30

Assignment #5	17	40
<b>Total Sum</b>	<b>69</b>	<b>130</b>

- b. Next the total points earned sum is divided by the total point possible sum to calculate a new percentage. This percentage is then multiplied times the total possible number of points earned for the category (in this case 50% equals 50 points)

<b>Total Points Earned Sum</b>	<b>Divided by Total Points Possible Sum</b>	<b>Equals New Percentage (In Decimal)</b>	<b>Times Weight of Category as a Whole Number</b>	<b>Equals Total Number of Points Earned</b>
69	130	0.5307692307692308	50	26.53846

### 3. Next let's look at the Tests category

- a. Blackboard sums the total points earned and total points possible for all assignments in the category.

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Possible</b>
Test #1	85	100
Test #2	125	200
Test #3	70	80
<b>Total Sum</b>	<b>280</b>	<b>380</b>

- b. Next the total points earned sum is divided by the total point possible sum to calculate a new percentage. This percentage is then multiplied times the total possible number of points earned for the category (in this case 30% equals 30 points)

<b>Total Points Earned Sum</b>	<b>Divided by Total Points Possible Sum</b>	<b>Equals New Percentage (In Decimal)</b>	<b>Times Weight of Category as a Whole</b>	<b>Equals Total Number of Points Earned</b>

			<b>Number</b>	
280	380	0.7368421052631579	30	22.10526

4. Finally let's look at the Final Exam category

- a. Blackboard sums the total points earned and total points possible for all assignments in the category.

<b>Assignment</b>	<b>Points Earned</b>	<b>Points Possible</b>
Final Exam	185	200
<b>Total Sum</b>	<b>185</b>	<b>200</b>

- b. Next the total points earned sum is divided by the total point possible sum to calculate a new percentage. This percentage is then multiplied times the total possible number of points earned for the category (in this case 20% equals 20 points)

<b>Total Points Earned Sum</b>	<b>Divided by Total Points Possible Sum</b>	<b>Equals New Percentage (In Decimal)</b>	<b>Times Weight of Category as a Whole Number</b>	<b>Equals Total Number of Points Earned</b>
185	200	0.925	20	18.5

5. So how does Blackboard calculate the Overall or Final Grade based on each new category total?

- a. Blackboard adds the Assignments Category Total (26.53846 points) plus Tests Category Total (22.10526 points) plus Final Exam Category Total (18.5 points) to equal the Overall or Final Grade (67.14372 points or 67.14372%)

<b>Category Name</b>	<b>New Total Earned</b>	<b>New Total Possible</b>
Assignments	26.53846	40

Tests	22.10526	30
Final Exam	18.50000	20
<b>Total</b>	<b>67.14372</b>	<b>100</b>
<b>Overall or Final Grade %</b>	<b>67.14372%</b>	<b>100%</b>