

How to compute your grade:

$$Total\ Score = \frac{Mid\ 1}{50} * 21 + \frac{Mid\ 2}{50} * 21 + \frac{Final}{100} * 36 + \frac{Hwk\ Avg\ Score}{10} * 10 + \frac{Activity\ Avg}{20} * 10 + \frac{Part.\ Avg}{2} * 2$$

Then match the Total Score to the corresponding grade according to this table:

Total Score	Grade
97-100	4.0
94-96	3.9
70-93	$0.1 \times (\text{total score}) - 5.5$
68-69	1.4
66-67	1.3
64-65	1.2
62-63	1.1
60-61	1.0
57-59	0.9
54-56	0.8
50-53	0.7
less than 50	0.0

Examples:

1) Suppose a student, Bob Fictional, got the following scores:

- Midterm 1: 37
- Midterm 2: 43
- Final Exam: 77
- Homeworks: 10, 6, 8, 9, 9, 10, 7 → Hwk Avg = 8.83
(Drop lowest (6) and average the other 6 scores: $53/6=8.83$)
- Activities: 17, 19, 20, 0, _, 15, 20 → Activities Avg = 18.2
(the blank is excused (Bob was sick that day), the lowest (0) is dropped, the other 5 average to $91/5=18.2$)
- Participation: 2, 2, 2, 2, 0, 2, 2 → Part. Avg = 2
(the lowest score (0) was dropped and the other 6 were averaged: $12/6=2$)

Bob's total score is:

$$Total\ Score = \frac{37}{50} * 21 + \frac{43}{50} * 21 + \frac{77}{100} * 36 + \frac{8.83}{10} * 10 + \frac{18.2}{20} * 10 + \frac{2}{2} * 2 = 81.25$$

His Grade is: $0.1 * (81.25) - 5.5 = 2.6$

- 2) Suppose another student, Joe Doesntmuchcometoclass got exactly the same exam scores as Bob, but has a homework average of 5, activities average of 7, and participation average 0.

Joe's total score is:

$$Total\ Score = \frac{37}{50} * 21 + \frac{43}{50} * 21 + \frac{77}{100} * 36 + \frac{5}{10} * 10 + \frac{7}{20} * 10 + \frac{0}{2} * 2 = 69.82$$

Joe's grade is 1.4.

- 3) Suppose Bob just took his first midterm, and got 37/50. His homework average so far is 9, activities average so far is 18, and participation is 2. He wants to know: how well does he need to do in the rest of the exams to get a grade of 3.3?

This is not an easy question to answer precisely, because the two exams are weighted differently and because his homework/activities/participation averages might change.

According to the conversion table, Bob first needs to solve the equation: $0.1 * x - 5.5 = 3.3$, to compute the total score needed for a grade of 3.3, namely: $x = (3.3 + 5.5)/0.1 = 88$.

Let's assume his homework/activities/participation averages don't change until the end of the term.

Let's also assume he gets the same percentage p on both exams. The second midterm and the final exam together are worth $21+36=57$ out of 100 points of his grade, so we get the equation:

$$total\ score = 88 = \frac{37}{50} * 21 + \frac{9}{10} * 10 + \frac{18}{20} * 10 + \frac{2}{2} * 2 + p * 57$$

Solving for p we get $p = 0.92$ --so Bob needs 92% or better on the remaining exams.

Note that if Bob gets 100% on both of the remaining exams, he can end up with a max total score of

$$\frac{37}{50} * 21 + \frac{9}{10} * 10 + \frac{18}{20} * 10 + \frac{2}{2} * 2 + 1 * 57 = 92.54$$

i.e. with a grade of 3.7 – or maybe 3.8 if he also increases his homework and activities averages]