

More Weighted Averages

7th Grade Math

Name: Key

Grade Point Averages

1. Many colleges and universities use a weighted average grading system. Courses that are worth more credits have a bigger influence on your grade.

A	=	4	B-	=	2.7	D+	=	1.3
A-	=	3.7	C+	=	2.3	D	=	1
B+	=	3.3	C	=	2	D-	=	0.7
B	=	3	C-	=	1.7	E	=	0

- a. Evaluate the GPA for both scenarios for the student who received the following grades:

Calculus	4 credits	E	Chemistry	4 credits	D-
English Lit.	3 credits	A	Computer Sci.	3 credits	B+
History	3 credits	A			

Scenario 1: GPA average weighted based on credits
Like colleges or universities

Total Credits
17

Scenario 2: GPA average NOT weighted like the JH

$$4 \cdot 0 + 3 \cdot 4 + 3 \cdot 4 + 4 \cdot 0.7 + 3 \cdot 3.3 = 39.1$$

Total Weighted = 39.1 credits

$$GPA = \frac{39.1}{17} = 2.297$$

$$GPA = \frac{0 + 4 + 4 + 0.7 + 3.3}{5} = 2.4$$

- b. Evaluate the GPA for both scenarios for the student who received the following grades:

Humanities	3 credits	C-	Calculus	4 credits	D-
Weightlifting	2 credits	A	Communications	3 credits	A

Scenario 1: GPA average weighted based on credits
Like colleges or universities

Total Credits
12

Scenario 2: GPA average NOT weighted like the JH

$$3 \cdot 1.7 + 2 \cdot 4 + 4 \cdot 0.7 + 3 \cdot 4 = 27.9$$

Total Weighted = 27.9 credits

$$GPA = \frac{27.9}{12} = 2.325$$

$$GPA = \frac{1.7 + 4 + 0.7 + 4}{4} = 2.6$$

Class Averages

2. A Spanish teacher weights her grades as follows...

Tests	50%
Quizzes and Assignments	20%
Participation	30%

Charlie is earning the following percentages in each category...

Tests	72%
Quizzes and Assignments	86%
Participation	96%

Evaluate Charlie's overall grade be for the class?

$$.5 \cdot .72 + .2 \cdot .86 + .3 \cdot .96$$
$$.82 \rightarrow 82\%$$

3. A physical education teacher weights his grades as follows...

Written Tests	10%
Physical Tests	10%
Participation	80%

Alayna is earning the following percentages in each category...

Written Tests	88%
Physical Tests	72%
Participation	100%

Evaluate Alayna's overall grade be for the class?

$$.1 \cdot .88 + .1 \cdot .72 + .8 \cdot 1$$
$$= .96 \rightarrow 96\%$$

4. A language arts teacher weights his grades as follows...

Papers	70%
Other Assignments	30%

Greg is earning the following percentages in each category...

Papers	70%
Other Assignments	30%

Evaluate Greg's overall grade be for the class?

$$.7 \cdot .7 + .3 \cdot .3$$
$$.58 \rightarrow 58\%$$