

# Weighted Average Problems

7<sup>th</sup> Grade Math

NAME

Key

with calc.

1. Laura's science teacher weighs his grades according to the following criteria...

homework	30%
quizzes	30%
test	40%

5pts

17pts

If Laura is earning the following percents in each category, what would her final grade be?

homework	80%
quizzes	95%
test	83%

$$\begin{aligned}
 &.3 \cdot .8 + .3 \cdot .95 + .4 \cdot .83 \\
 &.24 + .285 + .332 \\
 &= .857 \rightarrow 85.7\%
 \end{aligned}$$

2. Jake's Spanish teacher weighs his grades according to the following criteria...

participation	10%
homework	20%
quizzes	30%
tests	40%

6pts

If Jake is earning the following percents in each category, what would his final grade be?

participation	100%
homework	90%
quizzes	80%
tests	75%

$$\begin{aligned}
 &.1 \cdot 1 + .2 \cdot .9 + .3 \cdot .8 + .4 \cdot .75 \\
 &.1 + .18 + .24 + .3 \\
 &= .82 \rightarrow 82\%
 \end{aligned}$$

3. Megan's language arts teacher weighs her grades according to the following criteria...

homework	15%
research project	20%
quizzes	15%
tests	50%

6pts

If Megan is earning the following percents in each category, what would her final grade be?

homework	85%
research project	90%
quizzes	65%
tests	89%

$$\begin{aligned}
 &.15 \cdot .85 + .2 \cdot .9 + .15 \cdot .65 + .5 \cdot .89 \\
 &.1275 + .18 + .0975 + .445 \\
 &= .85 \rightarrow 85\%
 \end{aligned}$$