Conditions

Hi, I would like to work out a maths problem, but unfortunately I am appalling at maths. It's not really that difficult but I would like to work it out anyway.

OK, I did a recent Physics Exam and I know that my mark in it is directly proportional to a type of marking code called UMS (Uniform Mark Scale).

I know that I got 47/60 in the exam and that this converts to 93 UMS out of a possible 100 UMS. In a piece of coursework parallel to this exam it is marked out of 50, not out of 60. However, the coursework is still worth 100 UMS which obviously means that each mark is worth more UMS in the coursework compared to the exam.

What I am trying to find out is how much UMS each mark in the coursework is worth, and I have absolutely no idea how to do this, even though it is probably really easy and simple :(

Solution

If, as you say, we have a proportion between your mark and UMS, then if 47/60 = 93 UMS, so 1 UMS = 47/(60*93) = 0,008422939068100358422939068100358 4.

Then, for to get all possible 100 UMS you should get at least 47/93*100 = 50,537634408602150537634408602151 , or 51/60.

But this thoughts are true only if your tasks all are equal in difficulty and importance. Sometimes the valuation of each task could be different and depends on its hardness.

But if you are right, let’s continue our logic.

For 100 UMS in Physics Exam you need at least 51/60 , and it is 85% of all.

If we want to find such proportion not from 60 but from 50, we must find what is the 85% of 50. And it is 50*0,85=42,5. So you should do 42 and a half (or 43) tasks, to reach 100 UMS.

Your further questions are welcome!