**Problem**:

Given a set of courses, *courses*, find all percentages the user spent working on each course’s given tasks for a week, such that all percentages equal to 100%.

Each course has two types of variables, pages, and hours. To solve this, assume that:

*Pages = hours*

This assumption is made true due to the need to calculate the percent of work the user has done for a given task (The amount of work completed divided by the amount of work assigned), as such it can be said that

*3 pages completed out of 5 pages*

And

*3 hours completed out of 5 hours*

Are equivalent, as both the percentages equals to 0.6

**Solution:**

Let *r* be the set of reading task values.

Let *h* be the set of hour task values.

Let be the set of task values, defined as by the following equation

where the union will not remove duplicate values.

Let be the total amount (numeric) of all tasks for a given week:

Now we must consider each course in the course list defined as *courses*. Here a percentage value must be assigned to every course. This can be considered as the following:

Let *coursesi* be defined as a given course in the set *courses.*

Let *coursepercenti* be defined as a given course’s percent out of one hundred (100%) for the amount of work the user has done in the week.

*coursepercenti*= *calculatepercent()*

Therefore *calculatepercent()* can be defined as the following:

Let *courser* be the set of reading task values for a given course *coursesi* that the user has completed.

Let *courseh* be the set of hour task values for a given course *coursesi* that the user has completed.

Let be the set of task values for a given course, defined as by the following equation that the user has completed.

Let be the total amount (numeric) of the completed tasks for a given course:

Now the final course percent must be calculated:

To prove the theorem, we can test by:

Which will return 100, representing 100% of all tasks completed in a given week.

Therefore, we have calculated each percentage for every course’s tasks the user is currently taking.