

CAO points calculator

- a) Print the introduction and ask the user how many subjects they are doing. Then tell them that they will be asked to enter this many subjects.

Sample output would look like this

```
Welcome to my CAO points calculator
How many subjects are you taking in your Leaving Cert?7
You will be asked to enter your subjects, levels and grades 7 times below
```

- b) For each subject ask the user to enter the name of the subject, the level (H or O) and the expected grade (1 to 8)

Your output could look like this:

```
Welcome to my CAO points calculator
How many subjects are you taking in your Leaving Cert?7
You will be asked to enter your subjects, levels and grades 7 times below
Enter the subject name :Maths
Enter the level (H or O) :H
Enter the grade (1-8) :2
Enter the subject name :English
Enter the level (H or O) :H
Enter the grade (1-8) :3
Enter the subject name :|
```

- c) After all subjects have been entered, calculate their CAO points. Don't worry about +25 for H/L Maths yet.

Create a function

```
def calcCAOpoints(grade, level):
```

to calculate the points for each subject. It should have parameters grade and level, and return the number of points according to this table.

HIGHER			ORDINARY		
%	Grade	Points	Points	Grade	%
90-100	H1	100 + 25			
80 - <90	H2	88 + 25			
70 - <80	H3	77 + 25			
60 - <70	H4	66 + 25			
50 - <60	H5	56 + 25	56	O1	90-100
40 - <50	H6	46 + 25	46	O2	80 - <90
30 - <40	H7	37	37	O3	70 - <80
0 - <30	H8	0	28	O4	60 - <70
			20	O5	50 - <60
			12	O6	40 - <50
			0	O7	30 - <40
			0	O8	0 - <30

- d) Modify your code to ask the user about maths first. Ask what level they are doing and then the expected grade. Adjust the points total for +25 if necessary.
- e) Modify the code so that only a capital O or capital H are allowed for the level and only the digits 1-8 are allowed for the grade.

- f) As you know, you only count your top 6 subjects for CAO points. Depending on how you have coded parts a) to e), you may need to change your code a lot for this requirement. You will need to store the points in a list so that you can discard the lowest one(s). Remember that a student can sit 7, 8, 9 or more subjects.
- g) Finally, print out the list of top subjects, levels and grades as shown below.
Sample output:

```
Welcome to my CAO points calculator
How many subjects are you taking in your Leaving Cert?7
You will be asked to enter your subjects, levels and grades 7 times
below
At what level are you taking Maths ? Enter H or O :H
Enter the grade (1-8) :1
Enter the subject name :English
Enter the level (H or O) :H
Enter the grade (1-8) :2
Enter the subject name :Irish
Enter the level (H or O) :H
Enter the grade (1-8) :3
Enter the subject name :German
Enter the level (H or O) :H
Enter the grade (1-8) :4
Enter the subject name :Business
Enter the level (H or O) :O
Enter the grade (1-8) :3
Enter the subject name :Comp Sci
Enter the level (H or O) :H
Enter the grade (1-8) :1
Enter the subject name :History
Enter the level (H or O) :H
Enter the grade (1-8) :4
```

Here are your top 6 subjects

Subject	Grade	Points
Maths	H1	125
English	H2	88
Irish	H3	77
German	H4	66
Comp Sci	H1	100
History	H4	66

```
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522
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