Exercise Sheet 11

1. *multiplets*

Show that the multiplets in a

- d^2 shell are ^1S, ^3P, ^1D, ^3F, and ^1G.

- d^3 shell are ^2P, ^4P, $2\times\,^2D$, ^2F, ^4F, ^2G, and ^2H.

Write a program that finds the multiplets in any given shell.