

## Risp 8: Arithmetic Simultaneous Equations

...1, 3, 5, 7, 9, 11....

...-16, -5, 6, 17, 28, 39...

...78, 76, 74, 72, 70, 68...

Each of the above sequences is called ARITHMETIC; the terms go up or down by a constant amount each time.

Pick six consecutive terms from an arithmetic sequence, and place them in order into the squares below.

(Keep the numbers as simple as you can to start with!)

$$\square x + \square y = \square$$

$$\square x + \square y = \square$$

Now solve the pair of simultaneous equations you have created.

What do you discover?

Can you make a conjecture? Can you prove it?