Multiplication Square

Take a multiplication Square.

Pick any 2 by 2 square and add the numbers on each diagonal.

For example, if you take:

32	36
40	45

the numbers along one diagonal add up to 77 and the numbers along the other diagonal add up to 76.

Try a few more examples.

What do you notice?

Now pick any 3 by 3 square and add the numbers on each diagonal.

72	84	96
78	91	104
84	98	112

What do you think will happen with a 4 by 4 square?

Can you prove your prediction?

Thousands more problems can be found on the NRICH Maths website:

www.nrich.maths.org