

# Multiplication Square



Take a multiplication square.

Pick any 2 by 2 square and add the numbers on each diagonal. For example, if you take:

$$\begin{array}{r|l} 32 & 36 \\ \hline 40 & 45 \end{array}$$

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.

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

**Can you prove your prediction?**