

3x

6

$$3 \times 3 = 9$$

$$9 \times 9 = 81 = \underline{72}$$

3

$$6 \times 6 = 36$$

$$6 \times 6 = 36 \times 9 = 324$$

$$6 \times 6 = 36 = 108$$

$$12 \times 12 = 144$$

12

$$9 \times 9 = 81$$

$$15 \times 15 = 225 = \underline{144}$$

15

~~12 x 12 = 144~~

$$12 \times 12 = 144 = \underline{180}$$

$$18 \times 18 = 324$$

Difference
of
two
Squares

5x

10

$$5 \times 5 = 25$$

$$15 \times 15 = 225 = \underline{200}$$

15

$$10 \times 10 = 100$$

$$20 \times 20 = 400$$

$$= 300$$

20

$$15 \times 15 = 225$$

$$25 \times 25 = 625 = \underline{400}$$

7x

↑ 4

$$7 \times 7 = 49$$

$$21 \times 21 = 441 = 392$$

21

$$14 \times 14 = 196$$

$$28 \times 28 = 784$$

$$\underbrace{\hspace{10em}}_{196} = 588$$

I noticed that the difference between

the answer for the difference between

the two numbers ~~I~~ squared and the ~~next~~ difference

between the next two numbers I squared

was always 36 for the 3x table. This

is because the difference between

the two numbers either side of

your chosen number was always 6

in the 3x table and 6 squared or

$6 \times 6 = 36$. and so that is the difference.

The same logic ~~is~~ applies for both all the other tables. 5's ^{difference} was 100 7's ^{difference} 196

$$\begin{array}{c}
 9 \\
 3 \times 3 = 9 \\
 15 \times 15 = 225 = 246
 \end{array}$$

$$\begin{array}{c}
 12 \\
 6 \times 6 = 36 \\
 18 \times 18 = 324 = 288
 \end{array}$$

$$\begin{array}{c}
 15 \\
 9 \times 9 = 81 = 360 \\
 21 \times 21 = 441
 \end{array}$$

$$\begin{array}{c}
 18 \\
 12 \times 12 = 144 = 432 \\
 24 \times 24 = 576
 \end{array}$$

Because you are technically

you are squaring the numbers 6 below and 6 above it the answer will double from 36 to 72.

If you took the numbers 12 below and 12 above it ~~4~~ 72 would ~~do~~ double to 144 and if you took 24 below and 24 above 144 would double to 288 etc.

Phoebe

1.7.20