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STRATEGY

Multiplying 2-Digit Numbers by 11

Strategy

Find the value of 27×11 .

$$2 + 7 = 9$$

$$297$$

$$27 \times 11 = \mathbf{297}$$

Note: If the sum obtained is greater than 9, increase the first digit of the answer by 1.

□ Add the tens and the ones digits of the first factor.

□ Place the sum obtained between the first factor's digits.

Solve each problem mentally.

1. $45 \times 11 =$

3. $26 \times 11 =$

5. $84 \times 11 =$

7. $69 \times 11 =$

9. $31 \times 11 =$

2. $18 \times 11 =$

4. $55 \times 11 =$

6. $35 \times 11 =$

8. $75 \times 11 =$

10. $97 \times 11 =$

Multiplying by 11 shortcut

This technique teaches you how to multiply any number by eleven, easily and quickly. We will take a few examples and from these you will see the pattern used and also how easy they are to do.

So, to begin let's try 12 time 11.

First things first you will ignore the 11 for the moment and concentrate on the 12.

Split the twelve apart, like so:

$$1 \longleftrightarrow 2$$

Add these two digits together $1 + 2 = 3$

$$1+2 = 3$$

Place the answer, 3 in between the 12 to give 132

$$11 \times 12 = 132$$

Let's try another:

48 X 11

again, leave the 11 alone for a moment and work with the 48

$$4 + 8 = 12$$

So now we have to put the 12 in between the 4 and 8 but **don't** do this:
4128 as that is **wrong**...

First, do this: Place the 2 from the twelve in between the 4 and 8 giving 428.

Now we need to input the 1 from the twelve into our answer also, and to do this just add the one from 12 to the 4 of 428 giving 528!

Ok, one more

74 X 11

$$7+4 = 11$$

7 (put the 1 from the right of 11 in) and 4
then add the 1 from the left of 11 to the 7

74 X 11 = 814

This is a really simple method and will save you so much time with your 11 times tables.