## Multiplication Tips and Tricks

## Some Tips and Tricks

Here are some tricks that may help you remember your times tables. Everyone thinks differently, so just ignore any tricks that don't make sense to you.

## Every entry has a twin, which may be easier to remember. For example if you forget $8 \times 5$, you might remember $5 \times 8$. This way, you only have to remember half the table.

## to multiply <br> by

## Trick

2 add the number to itself (example $2 \times 9=9+9$ )
5 The last digit always goes 5,0,5,0,..,
is always half of $10 \times$ (Example: $5 \times 6=$ half of $10 \times 6=$ half of $60=30$ )
is half the number times 10 (Example: $5 \times 6=10 \times 3=30$ )
6
if you multiply 6 by an even number, they both end in the same digit. Example: $6 \times \mathbf{2}=1 \mathbf{2}$, $6 \times 4=24,6 \times 6=36$, etc
9 is $10 \times$ the number minus the number. Example: $9 \times 6=10 \times 6-6=60-6=54$
The last digit always goes $9,8,7,6, .$.
if you add the answer's digits together, you get 9 . Example: $9 \times 5=45$ and $4+5=9$. (But not with $9 \times 11=99$ )
10 put a zero after it
11 up to $9 \times 11$ : just repeat the digit (Example: $4 \times 11=44$ )
for $10 \times 11$ to $18 \times 11$ : write the sum of the digits between the digits (Example: $15 \times 11=$ $1(1+5) 5=165)$ Note: this works for any two-digit number, but if the sum of the digits is more than 9 , you will have to "carry the one".
12 is $10 \times$ plus $2 \times$

## Remembering Squares Can Help

This may not work for you, but it worked for me. I like remembering the squares (where you multiply a number by itself):

| $1 \times 1=1$ | $2 \times 2=4$ | $3 \times 3=9$ | $4 \times 4=16$ | $5 \times 5=25$ | $6 \times 6=36$ |
| :--- | :--- | :--- | :---: | :---: | :---: |
| $7 \times 7=49$ | $8 \times 8=64$ | $9 \times 9=81$ | $10 \times 10=100$ | $11 \times 11=121$ | $12 \times 12=144$ |

And this gives me one more trick. if the numbers you are multiplying are separated by 2 (example 7 and 5), then multiply the number in the middle by itself and subtract one. See this:

$$
\begin{gathered}
5 \times 5=25 \text { is just one bigger than } 6 \times 4=24 \\
6 \times 6=36 \text { is just one bigger than } 7 \times 5=35 \\
7 \times 7=49 \text { is just one bigger than } 8 \times 6=48 \\
8 \times 8=64 \text { is just one bigger than } 9 \times 7=63 \\
\text { etc } \ldots
\end{gathered}
$$

