$\qquad$

$\pi|\pi| \pi$

As with many of the times-tables, the best way to deal with them is to memorise them so that they pop into your head without thinking too hard. Every now and then though, we need $a$ helping hand.

Here is a simple strategy that might help you out if you get stuck:
Take for example $3 \times 7$ = ?? Some folks get stuck on this little guy, but he's one of my personal favourites. Don't worry - try this: You most likely know your $2 \times$ tables (yes I do! It's just doubles, silly old teacher) so, just do that first:
$2 \times 7=14$ (easy!) ... But we're multiplying by 3! Don't panic, just staple on another $\mathbf{7}$
$14+7=21$. So then, $3 \times 7=21$. Eureka! This works because $2+1=3$ (of course)
So, now try some for yourself:

1. $3 \times 8=$ $\qquad$ - $2 \times 8=$ $\qquad$ $+8=$ $\qquad$
2. $3 \times 6=$ $\qquad$ - $2 \times 6=$ $\qquad$ $+6=$ $\qquad$
3. $3 \times 12=$ $\qquad$ . $2 \times 12=$ $\qquad$ $+12=$ $\qquad$

The word 'Eureka' was made famous in the historic tale of how Archimedes discovered displacement while having a bath. Cool story:
https://www.youtube.com/watch?v=ijj58 xD5fDI
4. $3 \times 7=$ $\qquad$ . $2 \times 7=$ $\qquad$ $+7=$ $\qquad$
5. $3 \times 4=$ $\qquad$ .
$2 \times 4=$ $\qquad$ $+4=$ $\qquad$
6. $3 \times 9=$ $\qquad$ - $2 \times 9=$ $\qquad$ +9 = $\qquad$
7. $3 \times 3=$ $\qquad$ . $2 \times 3=$ $\qquad$ $+3=$ $\qquad$

8. $3 \times 11=$ $\qquad$ . $2 \times 11=$ $\qquad$ $+11=$ $\qquad$

Now you've got the hang of that, practice with these 'family of facts':
9.

$$
3 \times 8=
$$

$\qquad$ . $8 \times 3=$ $\qquad$ . $\qquad$ $\div 3=8$. $\qquad$ $\div 8=3$
10. $\qquad$ . $\qquad$ $\div 3=3$. (Why only 2 in this family?)
11. $\qquad$ . $12 \times 3=$ $\qquad$ . $\qquad$ $\div 3=12$. $\qquad$ $\div 12=3$
12. $3 \times 7=$ $\qquad$ . $7 \times 3=$ $\qquad$ . $\qquad$ $\div 3=7$. $\qquad$ $\div 7=3$
13. $3 \times 4=$ $\qquad$ . $4 \times 3=$ $\qquad$ . $\qquad$ $\div 3=4$. $\qquad$ $\div 4=3$
14. $3 \times 9=$ $\qquad$ - $9 \times 3=$ $\qquad$ . $\qquad$ $\div 3=9$. $\qquad$ $\div 9=3$
15. $3 \times 6=$ $\qquad$ - $6 \times 3=$ $\qquad$ . $\qquad$ $\div 6=3$. $\qquad$ $\div 3=6$
16. $3 \times 11=$ $\qquad$ . $11 \times 3=$ $\qquad$ . $\qquad$ $\div 3=11$. $\qquad$ $\div 11=3$

