

The twelve times table. *Stg 6b x/÷*

Name: _____

Twelve times tables? Too hard right? Nope. As with many of the times-tables, the best way to deal with them is to memorise them so that they become instant recall. On the way though, we sometimes need a helping hand. Here is a simple strategy that might help you out of a sticky situation:

Take for example $12 \times 7 = ??$ Often people get stuck on this one – probably because it's in both in the 7 and 12 times table.

Don't worry – try this: You know your 10 x tables without even trying. So, just do that first:

10 x 7 = 70 (easy!) ... But we're multiplying by 12! Don't panic, just **double** (x2) another **7** (**2** x 7 = 14) and stick it on. It looks like this:

70 + 14 = 84. So then, $12 \times 7 = 84$. Dopey Sneezzy, super easy.

This works because $12=10 + 2$ (gosh really, I had no idea). So, now try some for yourself:

1. $10 \times 8 = \underline{\quad} + (2 \times 8) = \underline{\quad}$ so **$12 \times 8 = \underline{\quad}$**

2. $10 \times 6 = \underline{\quad} + (2 \times 6) = \underline{\quad}$ so **$12 \times 6 = \underline{\quad}$**

3. $10 \times 12 = \underline{\quad} + (2 \times 12) = \underline{\quad}$ so **$12 \times 12 = \underline{\quad}$**

4. $10 \times 7 = \underline{\quad} + (2 \times 7) = \underline{\quad}$ so **$12 \times 7 = \underline{\quad}$**

5. $10 \times 4 = \underline{\quad} + (2 \times 4) = \underline{\quad}$ so **$12 \times 4 = \underline{\quad}$**

6. $10 \times 9 = \underline{\quad} + (2 \times 9) = \underline{\quad}$ so **$12 \times 9 = \underline{\quad}$**

7. $10 \times 3 = \underline{\quad} + (2 \times 3) = \underline{\quad}$ so **$12 \times 3 = \underline{\quad}$**

8. $10 \times 11 = \underline{\quad} + (2 \times 11) = \underline{\quad}$ so **$12 \times 11 = \underline{\quad}$**

Sarcasm.
The lowest
form of wit.



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

9. $12 \times 8 = \underline{\quad}$. $12 \times 8 = \underline{\quad}$. $\underline{\quad} \div 8 = 12$. $\underline{\quad} \div 8 = 12$

10. $12 \times 12 = \underline{\quad}$. $\underline{\quad} \div 12 = 12$. (Why only 2 in this family?)

11. $12 \times 7 = \underline{\quad}$. $7 \times 12 = \underline{\quad}$. $\underline{\quad} \div 7 = 12$. $\underline{\quad} \div 12 = 7$

12. $12 \times 6 = \underline{\quad}$. $6 \times 12 = \underline{\quad}$. $\underline{\quad} \div 6 = 12$. $\underline{\quad} \div 12 = 6$

13. $12 \times 4 = \underline{\quad}$. $4 \times 12 = \underline{\quad}$. $\underline{\quad} \div 12 = 4$. $\underline{\quad} \div 4 = 12$

14. $12 \times 9 = \underline{\quad}$. $9 \times 12 = \underline{\quad}$. $\underline{\quad} \div 12 = 9$. $\underline{\quad} \div 9 = 12$

15. $12 \times 3 = \underline{\quad}$. $3 \times 12 = \underline{\quad}$. $\underline{\quad} \div 12 = 3$. $\underline{\quad} \div 3 = 12$

16. $12 \times 11 = \underline{\quad}$. $11 \times 12 = \underline{\quad}$. $\underline{\quad} \div 12 = 11$. $\underline{\quad} \div 11 = 12$

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OK, we know that we can split 12 into 10 and 2 to make multiplication by 12 easier.

E.g. $10 \times 7 = 70$, $2 \times 7 = 14$, $70 + 14 = 84$, so then **$12 \times 7 = 84$**

That's cool, but can we do the same with bigger numbers? Uh-huh, absolutely we can. In fact there's two similar ways we can look at it. First, as we've already learned, split the 12 in to 10 and 2. Try some of these nasty looking ones – you'll find it's not too scary:

E.g. $10 \times 23 = 230$ $+ (2 \times 23) = 46$ so **$12 \times 23 = 276$**

1. $10 \times 31 = \underline{\hspace{2cm}}$ $+ (2 \times 31) = \underline{\hspace{2cm}}$ so **$12 \times 31 = \underline{\hspace{2cm}}$**

2. $10 \times 42 = \underline{\hspace{2cm}}$ $+ (2 \times 42) = \underline{\hspace{2cm}}$ so **$12 \times 42 = \underline{\hspace{2cm}}$**

3. $10 \times 53 = \underline{\hspace{2cm}}$ $+ (2 \times 53) = \underline{\hspace{2cm}}$ so **$12 \times 53 = \underline{\hspace{2cm}}$**

4. $10 \times 44 = \underline{\hspace{2cm}}$ $+ (2 \times 44) = \underline{\hspace{2cm}}$ so **$12 \times 44 = \underline{\hspace{2cm}}$**

5. $10 \times 41 = \underline{\hspace{2cm}}$ $+ (2 \times 41) = \underline{\hspace{2cm}}$ so **$12 \times 41 = \underline{\hspace{2cm}}$**

6. $10 \times 34 = \underline{\hspace{2cm}}$ $+ (2 \times 34) = \underline{\hspace{2cm}}$ so **$12 \times 34 = \underline{\hspace{2cm}}$**

7. $10 \times 32 = \underline{\hspace{2cm}}$ $+ (2 \times 32) = \underline{\hspace{2cm}}$ so **$12 \times 32 = \underline{\hspace{2cm}}$**

Or, if you are more familiar with your 12 times tables basic facts, this method allows you to do any size number by 12. Instead of splitting the 12, split the other number into its **tens and ones**. Have a go, so long as you can add up stuff, you'll be fine!

E.G.	53
	X 12
	<hr/>
	$(3 \times 12) = 36$
	$+ (50 \times 12) = 600$
	<hr/>
	= 636

a.	64
	X 12
	<hr/>
	$(4 \times 12) = 48$
	$+ (60 \times 12) = 720$
	<hr/>
	= _____

b.	47
	X 12
	<hr/>
	$(7 \times 12) = \underline{\hspace{2cm}}$
	$+ (40 \times 12) = \underline{\hspace{2cm}}$
	<hr/>
	= _____

c.	54
	X 12
	<hr/>
	$(\underline{\hspace{1cm}} \times 12) = \underline{\hspace{2cm}}$
	$+ (\underline{\hspace{1cm}} \times 12) = \underline{\hspace{2cm}}$
	<hr/>
	= _____

d.	73
	X 12
	<hr/>
	<hr/>
+	<hr/>
	<hr/>
	<hr/>
	= _____

e.	48
	X 12
	<hr/>
	<hr/>
+	<hr/>
	<hr/>
	<hr/>
	= _____

f.	69
	X 12
	<hr/>
	<hr/>
+	<hr/>
	<hr/>
	<hr/>
	= _____

g.	83
	X 12
	<hr/>
	<hr/>
+	<hr/>
	<hr/>
	<hr/>
	= _____

h.	94
	X 12
	<hr/>
	<hr/>
	<hr/>
	<hr/>
	<hr/>
	= _____



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E.g. $10 \times 23 = 230$ $+ (2 \times 23) = 46$ so $12 \times 23 = 276$

1. $10 \times 31 = 310 + (2 \times 31) = 62$ so $12 \times 31 = 372$

2. $10 \times 42 = 420 + (2 \times 42) = 84$ so $12 \times 42 = 504$

3. $10 \times 53 = 530 + (2 \times 53) = 106$ so $12 \times 53 = 636$

4. $10 \times 44 = 440 + (2 \times 44) = 88$ so $12 \times 44 = 528$

5. $10 \times 41 = 410 + (2 \times 41) = 82$ so $12 \times 41 = 492$

6. $10 \times 34 = 340 + (2 \times 34) = 68$ so $12 \times 34 = 408$

7. $10 \times 32 = 320 + (2 \times 32) = 64$ so $12 \times 32 = 384$

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E.G.	53
	X 12
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$(3 \times 12) =$	36
$+ (50 \times 12) =$	600
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	= 636

a.	64
	X 12
<hr/>	
$(4 \times 12) =$	48
$+ (60 \times 12) =$	720
<hr/>	
	= 768

b.	47
	X 12
<hr/>	
$(7 \times 12) =$	84
$+ (40 \times 12) =$	480
<hr/>	
	= 564

c.	54
	X 12
<hr/>	
$(4 \times 12) =$	48
$+ (50 \times 12) =$	600
<hr/>	
	= 648

d.	73
	X 12
<hr/>	
	36
$+$	840
<hr/>	
	= 876

e.	48
	X 12
<hr/>	
	96
$+$	480
<hr/>	
	= 576

f.	69
	X 12
<hr/>	
	108
$+$	720
<hr/>	
	= 828

g.	83
	X 12
<hr/>	
	36
$+$	960
<hr/>	
	= 996

h.	94
	X 12
<hr/>	
	48
$+$	1080
<hr/>	
	= 1128

