

Maths "How To" guide

Column addition $478+254=$

HTU
478
+ 254

2

1

Start with the units. 8 and 4 is 12.

We put the 2 with the units and the 1 (ten) in the tens column.

This is re-grouping.

HTU
478
+ 254

32

11

Moving on to the Tens column.

Don't forget to add the 1 ten below the line that was re-grouped.

$7 + 5 + 1 = 13$. This is 13 tens.

We put the 3 tens in the tens column in the answer line. The 1 means 10 tens (or 1 hundred) and is regrouped into the hundreds column below the answer line.

HTU
478
+ 254

732

11

Finally we move onto the Hundreds column.

Don't forget to add the 1 hundred below the line that was re-grouped.

$4 + 2 + 1 = 7$

Expanded column addition

$234 + 345 =$

200	30	4
300	40	5
500	70	9

Answer is 579.

Column subtraction

$$\begin{array}{r} \text{H T U} \\ 2. \\ 6 \ 3 \ 2 \\ - 2 \ 4 \ 5 \\ \hline \\ \hline \end{array}$$

Start with the units. $2 - 5 =$

We can't do that.

So we 'regroup' one of the tens into the units column.

Therefore making the '3' tens into '2' tens and the 2 units into 12 units.

$$\begin{array}{r} \text{H T U} \\ 2. \\ 6 \ 3 \ 2 \\ - 2 \ 4 \ 5 \\ \hline \quad 7 \\ \hline \end{array}$$

So now, we can solve the units column:

$$12 - 5 = 7$$

Moving onto the tens. $2 - 4 =$

$$\begin{array}{r} \text{H T U} \\ 5. \ 12 \\ \cancel{6} \ \cancel{3} \ 2 \\ - 2 \ 4 \ 5 \\ \hline 3 \ 8 \ 7 \\ \hline \end{array}$$

We can't do that. So we 'regroup' a hundred into the tens.

Therefore making the 6 hundreds into 5. And then 2 tens become 12 tens.

Now we can solve the tens column: $12 - 4 = 8$

Then the hundreds column: $5 - 2 = 3$

Expanded column subtraction

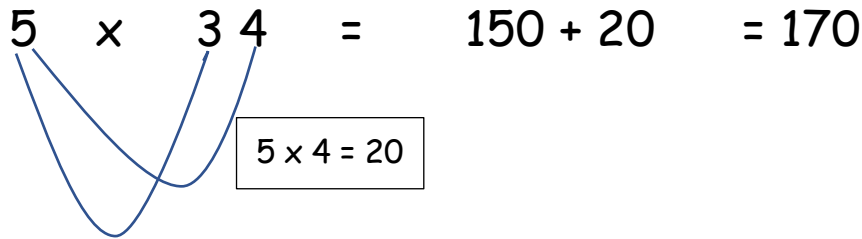
$$659 - 345 =$$

600	50	9
300	40	5
300	10	4

Answer is 314.

Smile Multiplication

$5 \times 34 =$

$$5 \times 34 = 150 + 20 = 170$$


$$5 \times 3 = 15$$

So, $5 \times 30 = 150$

Box method Multiplication

$5 \times 34 =$

X	30	4
5		

$$5 \times 3 = 15$$

So, $5 \times 30 = 150$

$$5 \times 4 = 20$$


X	30	4
5	150	20

$$= 170$$

Multiply by 10.

$32 \times 10 =$

H	T	U
3	2	



Digits move to the left.
So $10 \times 2 = 20$ and $10 \times 30 = 300$.
Therefore a zero is placed in the units column.


H	T	U
3	2	0

$$32 \times 10 = 320$$

Divide by 10

$460 \div 10 =$

H	T	U
4	6	0



Digits move to the right.
So $60 \div 10 = 6$ and $400 \div 10 = 40$.
Therefore the zero in the units column goes.

H	T	U
4	6	

$$460 \div 10 = 46$$

Fact Families.

$$67 + 15 = 82$$

To find the other 3 members of the family:

- Switch the digits around to create another addition i.e. $15 + 67 = 82$
- Write an inverse statement using the opposite operation i.e. a subtraction. $82 - 67 = 15$
- Then switch the digits to create another subtraction i.e. $82 - 15 = 67$

Only the three numbers in the original number sentence should be used.

Answer:

$67 + 15 = 82$	$15 + 67 = 82$
$82 - 67 = 15$	$82 - 15 = 67$

$$12 \times 59 = 708$$

To find the other 3 members of the family:

- Switch the digits around to create another multiplication i.e. $59 \times 12 = 708$
- Write an inverse statement using the opposite operation i.e. a division. $708 \div 59 = 12$
- Then switch the digits to create another division i.e. $708 \div 12 = 59$

Only the three numbers in the original number sentence should be used.

Answer:

$12 \times 59 = 708$	$59 \times 12 = 708$
$708 \div 59 = 12$	$708 \div 12 = 59$

