

Mental multiplication – multiplying 2 digits x 1 digits

$$35 \times 7 = 245$$

The problem broken down in order to emphasize the order of operation.

3 * 7	2	1	
5 * 7		3	5
total =	2	4	5

In this example keep the **red subtotal** firmly in mind while adding to it the **green product** of the subsequent multiplication.

3	*	7	=	2	1	
subtotal =				2	1	
5	*	7	=		3	5
total =				2	4	5

Mental multiplication – multiplying 2 digits by 2 digits

$$35 \times 72 = 2520$$

The problem broken down in order to emphasize the order of operation.

3 * 7	2	1		
5 * 7		3	5	
3 * 2		0	6	
5 * 2			1	0
total	2	5	2	0

In this example keep the **red subtotal** firmly in mind while adding to it the **green products** of subsequent multiplications.

3	*	7	=	2	1	
5	*	7	=		3	5
				2	4	5
subtotal =				2	4	5
3	*	2	=		0	6
5	*	2	=			1 0
total =				2	5	2 0

Mental multiplication – multiplying 3 digits by 3 digits

$$357 \times 728 = 259896$$

The problem broken down in order to emphasize the order of operation.

$3 * 7$	2	1				
$5 * 7$		3	5			
$7 * 7$			4	9		
$3 * 2$		0	6			
$5 * 2$			1	0		
$7 * 2$				1	4	
$3 * 8$			2	4		
$5 * 8$				4	0	
$7 * 8$					5	6
total	2	5	9	8	9	6

In this example keep the **red subtotals** firmly in mind while adding to them the **green products** of subsequent multiplications.

3	*	7	=	2	1				
5	*	7	=		3	5			
7	*	7	=			4	9		
				2	4	9	9		
subtotal =				2	4	9	9		
3	*	2	=		0	6			
5	*	2	=			1	0		
7	*	2	=				1	4	
				2	5	7	0	4	
subtotal =				2	5	7	0	4	
3	*	8	=			2	4		
5	*	8	=				4	0	
7	*	8	=					5	6
total =				2	5	9	8	9	6