More Than One Digit

To solve multiplication problems using the traditional method it's a lot like addition.

You multiply, carry (if you need to) and repeat going from right to left for each number. Then you add your two answers together. Lets take a look at the steps in depth below to solve the problem:



		1	
	9	0	7
×		3	2
		1	4

1) Ones place × Ones place.			
A.	$2 \times 7 = 14$		
В.	Place the 4 in the ones column and carry the 1 to the tens column over the 0.		



5)	5) Tens place × Ones place.				
A.	$3 \times 7 = 21$				
В.	Place the 1 in the tens column and carry the 2 over the 0.				

2) Ones place × Tens place.				
A.	$2 \times 0 = 0$			
B.	Add the 1 you carried in step 1.			
C.	0 + 1 = 1			
D.	Place the 1 in the tens column.			



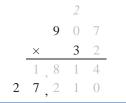
6)	6) Tens place × Tens place.				
А.	$3 \times 0 = 0$				
В.	Add the 2 you carried in step 5.				
C.	0 + 2 = 2				
D.	Place the 2 in the hundreds column.				

		1	
	9	0	7
×		3	2
1	8	1	4

3) Ones	place	× hune	dreds	place.

A.	$2 \times$	9 =	18

B. Place the 8 in the hundreds column and the 1 in the thousands column.



7) Tens place × hundreds place.

A. $3 \times 9 = 27$

B. Place the 7 in the thousands column and the 2 in the ten thousands column.

		1	
	9	0	7
\times		3	2
1,	8	1	4
			0

4) Place 0.

A. Place a 0 in the ones column. This is because now we're multiplying everything time 30.

				2		
			9	0	7	
		\times		3	2	
		1,	8	1	4	
+	2	7	2	1	0	
8)	Get	read	ly t	o ad	ld.	
A.	Set the problem up so that you can add					
	your two answers together.					

$\begin{array}{cccccccccccccccccccccccccccccccccccc$					B. So $907 \times 32 = 29,024$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	A. $4 + 0 = 4$	A. $1 + 1 = 2$	A. $8 + 2 = 10$	A. $7 + 1 + 1 = 9$	A. $2 + 0 = 2$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9) Add ones.	10) Add tens.	11) Add hundreds.	12) Add thousands.	13) Add ten thousands.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4	2 4	0 2 4	9 0 2 4	2 9 0 2 4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	+ 2 7 2 1 0	+ 2 7 2 1 0	+ 2 7 2 1 0	+ 2 7 2 1 0	+ 2 7 2 1 0
	1,8 1 4	1,814	1,814	1,814	1,814
2 2 2 2 9 0 7 9 0 7 9 0 7 9	× 32	× 32	× 3 2	<u>× 32</u>	× 3 2
2 2 2 2	9 0 7	9 0 7	9 0 7	9 0 7	9 0 7
	2	2	2	2	2

Things to Remember

• Make sure you put your 0 in before you multiply the second number. If you don't your entire answer will be wrong!