2 digit × 2 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 below:

```
   1                      1                        1
   9 7                    9 7                      9 7
 ×  5 2                 ×  5 2                    ×  5 2
 ─────                  ─────                     ─────
     4                  1 9 4                     1 9 4
                                                        0
```

1) Ones place × Ones place.

A. 2 × 7 = 14

B. Place the 4 in the ones column and carry the 1 to the tens column over the 9.

2) Ones place × Tens place.

A. 2 × 9 = 18

B. Add the 1 you carried in step 1.

C. 18 + 1 = 19

D. Place the answer in the tens column.

3) Place 0.

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

```
     3                      3                          3
     9 7                    9 7                        9 7
   ×  5 2                 ×  5 2                     ×  5 2
   ─────                  ─────                      ─────
   1 9 4                  1 9 4                      1 9 4
   5 0                  4 8 5 0                  +  4 8 5 0
```

4) Tens place × Ones place.

A. 5 × 7 = 35

B. Place the 5 in the tens column and carry the 3 over the 9.

5) Tens place × Tens place.

A. 5 × 9 = 45

B. Add the 3 you carried in step 5.

C. 45 + 3 = 48

D. Place the answer in the hundreds column.

6) Get ready to add.

A. Set the problem up so you can add your two answers together.

```
      3                     3                      3                      3
      9 7                   9 7                    9 7                    9 7
    ×  5 2                1 5 2                  1 5 2                  ×  5 2
    ─────                ─────                  ─────                  ─────
    1 9 4                1 9 4              1  1 9 4              1  1 9 4
 +  4 8 5 0           +  4 8 5 0           +  4 8 5 0           +  4 8 5 0
    ─────                ─────                  ─────                  ─────
        4                  4 4                0 4 4              5 0 4 4
```

7) Add ones.

A. 4 + 0 = 4

8) Add tens.

A. 9 + 5 = 14

B. Carry the 1.

9) Add hundreds.

A. 1 + 1 + 8 = 10

B. Carry the 1.

10) Add thousands.

A. 1 + 4 = 5

B. 97 × 52 = 5,044

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!