

## MULTIPLICATION OF FOUR-DIGITS BY TWO-DIGITS

Students should know multiplication facts and be able to multiply by one and two-digit multipliers. When multiplying larger numbers, the procedure is the same. Multiply by ones; multiply by tens; then add the partial products.

**Example:**

1,232	←	multiplicand
x 32	←	multiplier
12,464	←	partial products
36,960	←	
39,424	←	product

## MULTIPLICATION OF LARGER NUMBERS WITH A THREE-DIGIT MULTIPLIER

**Example:**

2,366
x 148
18,928

254	2,366
x 148	18,928
18,928	

Multiply the ones:  
 $8 \times 6 = 48$ , trade the 4  
 $8 \times 6 = 48$  plus 4 = 52, trade the 5  
 $8 \times 3 = 24$  plus 5 = 29, trade the 2  
 $8 \times 2 = 16$  plus 2 = 18, trade the 1

122	254	2,366
x 148	18,928	94,640
18,928	94,640	236,600
350,168		

Multiply the tens:  
 0 is the place holder  
 $4 \times 6 = 24$ , trade the 2  
 $4 \times 6 = 24$  plus 2 = 26, trade the 2  
 $4 \times 3 = 12 + 2 = 14$ , trade the 1  
 $4 \times 2 = 8 + 1 = 9$

Multiply the hundreds:  
 zeros hold the places  
 $1 \times 6 = 6$   
 $1 \times 6 = 6$   
 $1 \times 3 = 3$   
 $1 \times 2 = 2$

Now add the partial products.

**The product is 350,168**