

Name: \_\_\_\_\_

## Using the Distributive Property

We can multiply any two or three digit number by a one digit number by first expanding and then using the distributive property.

For example, let's say I want to multiply 47 by 8.

$$\begin{aligned} 8 \times 47 &= 8 \times (40 + 7) && \text{(writing 47 in expanded form)} \\ &= (8 \times 40) + (8 \times 7) && \text{(using the distributive property)} \\ &= 320 + 56 && \text{(multiplying)} \\ &= 376 && \text{(adding)} \end{aligned}$$

Your Turn:

Multiply by expanding and using the distributive property:

1.  $4 \times 53 =$

2.  $6 \times 24 =$

3.  $4 \times 42 =$

4.  $3 \times 35 =$

5.  $2 \times 72 =$

6.  $5 \times 94 =$

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## Using the Distributive Property

Now, let's try multiplying a three-digit number by a one digit number.

Let's multiply 467 by 4.

*Remember: I must multiply the value of each digit by 4.*

$$4 \times 567 = 4 \times (500 + 60 + 7)$$

Expanding

$$= (4 \times \underline{500}) + (4 \times \underline{60}) + (4 \times 7)$$

Applying the Distributive Principle

$$= 2,000 + 240 + 28$$

Multiplying

$$= 2,268$$

Adding

Now, you try:

$$2 \times 519 =$$

$$2 \times 129 =$$

$$4 \times 236 =$$

$$421 \times 5 =$$

$$242 \times 3 =$$