Name: ..... Class: .....

Find the missing factor using the distributive property

Find the missing number in the following expressions using the distributive property of multiplication.

a. 3 X 40 = (3 X 20) + (3 X _____)

b. 4 x 2 + 4 x 24 = _____ x 4

c. (12 x 2) – (12 x 1) = 12 x _____

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Solution

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Find the missing factor using the distributive property

Find the missing number in the following expressions using the distributive property of multiplication.

a. 3 X 40 = (3 X 20) + (3 X _____)

Let's first of all decompose 40 into two numbers that when added will give us 40.

3 x 40 = 3 x (20 + 20)

Now, let's apply the distributive property.

3 x (20 + 20) = (3 x 20) + 3 x ?

(3 x 20) + (3 x 20) = (3 x 20) + 3 x ?

So, the missing number must be 20.

b. 4 x 2 + 4 x 24 = _____ x 4

Using the distributive property to solve this, we have

4 x 2 + 4 x 24 = ? x 4

(4 x 2) + (4 x 24) = ? x 4

(2 + 24) x 4 = ? x 4

26 x 4 = ? x 4

So, the missing number must be 26.

c. (12 x 2) – (12 x 1) = 12 x _____

Let's apply the distributive property by taking out the common digit in the expression

(12 x 2) – (12 x 1) = 12 x _____

(12 x 2) – (12 x 1) = 12 x ?

12 x (2 – 1) = 12 x ?

12 x 1 = 12 x ?

So, the missing number must be 1.

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