August 24, 2024

Mr. Rasmusen’s Math Class

**The Distributive Property**

The distributive property is about how addition and multiplication can be combined and taken apart. The basic idea is illustrated by:

5\*(8+3) = 5\*8 + 5\*3

= 40 + 15

= 55

In that example, you get to do two single digit multiplications, 5\*8 and 5\*3 instead of one double digit one, 5\*11 = 55.

We can illustrate this as a rectangle:

Another example is

5\*603 = 5\*(600 + 3) = 5\*600 + 5\*3

= 3,000 + 15

= 3,015

Here is a more complicated example:

23 \* 78 = (20+3)\*(70+8)

= 20\*(70+8) + 3\*(70+8)

= 20\*70 + 20\*8 + 3\*70 + 3\*8

= 1400 + 160 + 210 + 24