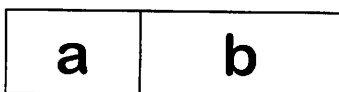


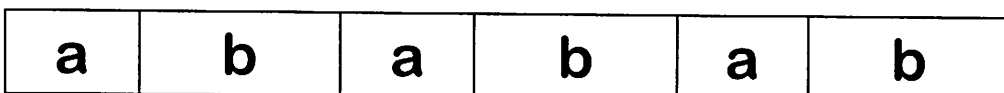
"I Can Apply the Distributive Property to Generate an Equivalent Expression."

Distributive Property

The tape diagram below represents the **Quantity** $(a + b)$



How does the tape diagram below represent $3(a+b)$?



After applying the Commutative Property, we can see an **Equivalent Expression** to $3(a+b)$.



What conclusion can be drawn from the models about equivalent expressions?

To prove that these two forms are equivalent, let's plug in some values for a and b see what happens.

Let $a = 3$ and $b = 4$

$$3(a+b)$$

$$3a+3b$$

Let $a = 5$ and $b = 7$

$$3(a+b)$$

$$3a+3b$$

Remember $3(a + b)$ means the repeated addition of $a + b$ three times.

$$3(a + b) = a + b + a + b + a + b$$

Use this idea to expand the following expressions.
Then use the Commutative Property to simplify.

$$4(5x + 3y)$$

$$3(x + 6y - 5z)$$

WE DO

Expression	$4(2 + 8 - 3)$	$9(8a - p)$	Expression	$7(3h + 2j) + 8h$
Distribute	_____	_____	Distribute	_____
Evaluate	_____		Combine	_____

