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

**LearnZillion Guided Notes**

*Watch the LearnZillion video posted in Google classroom. Complete this guided note sheet as you watch the video*.

In this lesson, you will learn how to apply the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ by using the concept of \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The concept of repeated addition can be used to write an \_\_\_\_\_\_\_\_\_\_\_\_\_\_ expression for X + X + X.

We are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ adding ‘X’ together three times. We have \_\_\_\_\_\_\_\_\_\_\_\_ groups of ‘X’. We can rewrite this as \_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_.

We will be using the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ property to create \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Our example will be 4(2X+1).

When we are expanding expressions, we are thinking about it by showing \_\_\_\_\_\_\_\_\_\_\_\_\_.

In this example, how many groups would we have? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write out the groups together:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_

We can see that 4(2X+1) means that we are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ four groups of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

We can simplify this using the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ property.

This would be written as:

\_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_

By doing this, we have grouped the like terms.

We can think about the ‘X’s as \_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_. This can be written as \_\_\_\_\_\_.

We can simplify the ‘1’s like this: \_\_\_\_\_\_

Our equivalent expression would be \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_.

A quicker way to do this would be to use the standard algorithm of expanding using the distributive property. By using this algorithm, we \_\_\_\_\_\_\_\_ every thing in the parentheses by \_\_\_\_\_\_.  We would multiply 2X by 4 and get \_\_\_\_\_ and we would multiply 1 by 4 and get \_\_\_\_.

A common misunderstanding when using this is to forget to multiply the \_\_\_\_\_\_ term inside the parentheses.