Skip Counting to Multiply?

For the past lessons, we learned how to multiply using visual techniques of drawing arrays and creating equal groups. To further enhance these techniques, there are also ways to multiply arithmetically. Skip counting is the method of counting forward by numbers other than one. It is similar to repeated addition wherein **the counted numbers have the same interval with each other**. Think of it as the **distance of each number to the next and previous numbers is always the same**. We skip count by repeatedly adding the same number until you get the answer.

That means that the concept of multiples is introduced. Multiples are a set of numbers that have a base number and its succeeding products multiplied starting from 1 and so on. Consider the **multiplicand as the base number or the number counted repeatedly**, and the **multiplier as the number of times you will repeatedly count** the base number.

For example, **4 x 3** can be skip counted as **4, 8, 12**.
The base number is 4 and it is repeatedly counted 3 times starting with **4 x 1 = 4**, then **4 x 2 = 8**, and finally, **4 x 3 = 12**.
We can also understand it as **4 plus 4 plus 4, equals 12**.

Name: _____ Period: _____ Date: _____

Skip Counting

Guided Notes **Math 3**

For example:

4 x 3

Base Number **Number of times counted**

We repeatedly count by 4 three times.

Start with the base number. Count by 4 once, which is 4 x 1:

4 

There are 4 counted circles.

Then, we count by 4 again. Count by 4 twice, which is 4 x 2:

4 

8 

There are 8 counted circles.

Finally, we count by 4 again. Count by 4 thrice, which is 4 x 3:

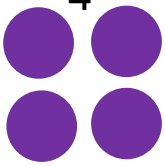
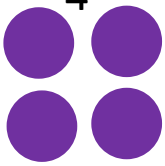
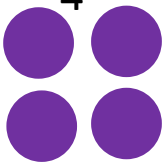
4 

8 

12 

There are 12 counted circles.

We can also look at counting by 4 three times as repeatedly adding 4 three times:

4  + 4  + 4 

The sum is **12**.

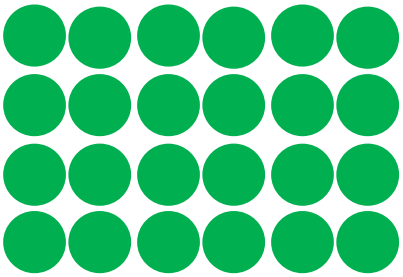
Name: _____ Period: _____ Date: _____

Skip Counting

Guided Notes **Math 3**

Encircle the rows of the following arrays

____ rows of ____



____ rows of ____

Fill in the blanks to count by 4:

4, ____, ____, 16, ____, 24, ____, ____, ____, 40

Time to think

1. How can you count by four using an array model?

2. Can we interchange the number of rows and columns of an array and still count by four? How?

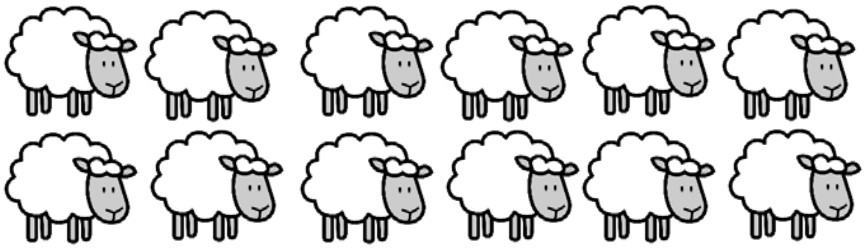
3. Does counting by 4, meaning listing down the multiples of 4?

Name: _____ Period: _____ Date: _____

Skip Counting

Guided Notes **Math 3**

Group the following items into groups of 4.

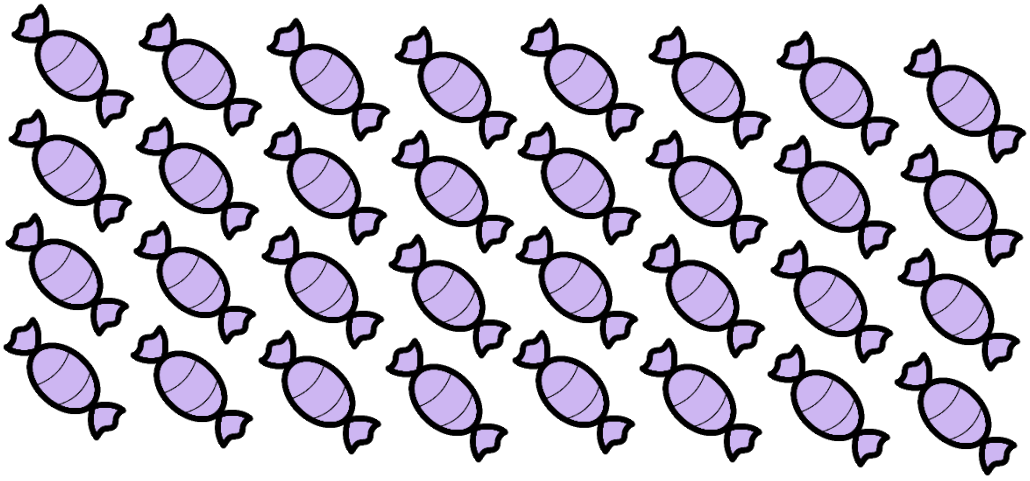


4 + _____ = _____

_____ x 4 = _____

4 + _____ = _____

_____ x 4 = _____



4 + _____ = _____

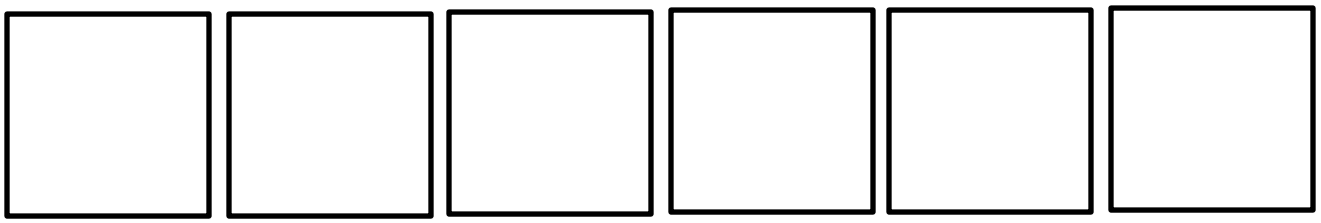
_____ x 4 = _____

Name: _____ Period: _____ Date: _____

Skip Counting

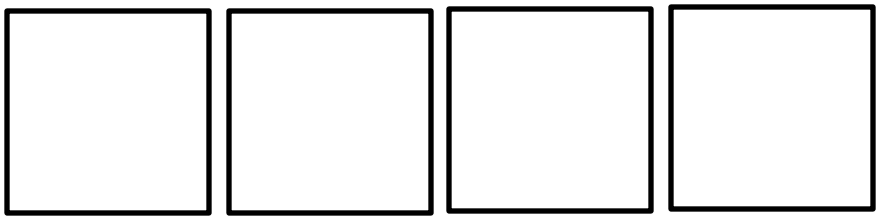
Guided Notes **Math 3**

Draw 4 dots inside each square.



_____ + _____ + _____ + _____ + _____ + _____ = _____

_____ x _____ = _____



_____ + _____ + _____ + _____ = _____

_____ x _____ = _____

Time to Think

1. How can equal groups help in counting by four?

2. How can repeated addition relate to skip counting using equal groups?

Name: _____ Period: _____ Date: _____

Skip Counting

Guided Notes **Math 3**

Draw a tape diagram that has 4 items inside each square for the following scenarios:

Jessie has 7 baskets. She put 4 strawberries in each basket.

Amanda counted her lollipops by four, 6 times.

Brian put 4 rings in each finger in one hand.

Troy has 9 containers. He placed 4 toy cars in each container.

Name: _____ Period: _____ Date: _____

Skip Counting

Guided Notes **Math 3**

Time to Think

Using what we learned about skip counting by 4, answer these word problems:

1. Irene wants to know how much water she will get by placing 4 liters each in 6 jars. Draw a tape diagram.

2. Joshua has 9 paper bags. He put 4 candies in each bag. How many candies does he have? Draw equal groups.

3. Michael has 4 rows of 8 pebbles. How many pebbles does he have? Draw an array model.