



**Multiplication of Larger
Numbers**

What is multiplication?

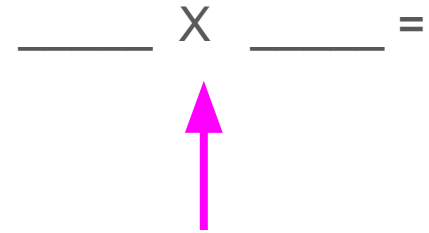
Multiplication is a faster way to complete repeated addition. You make equal groups.

Repeated Addition

$$3 + 3 + 3 + 3 + 3 = 15$$

Which is 5 groups of 3 **or**

$$5 \times 3 = 15$$

$$\underline{\quad} \times \underline{\quad} =$$


This symbol stands for "groups of".



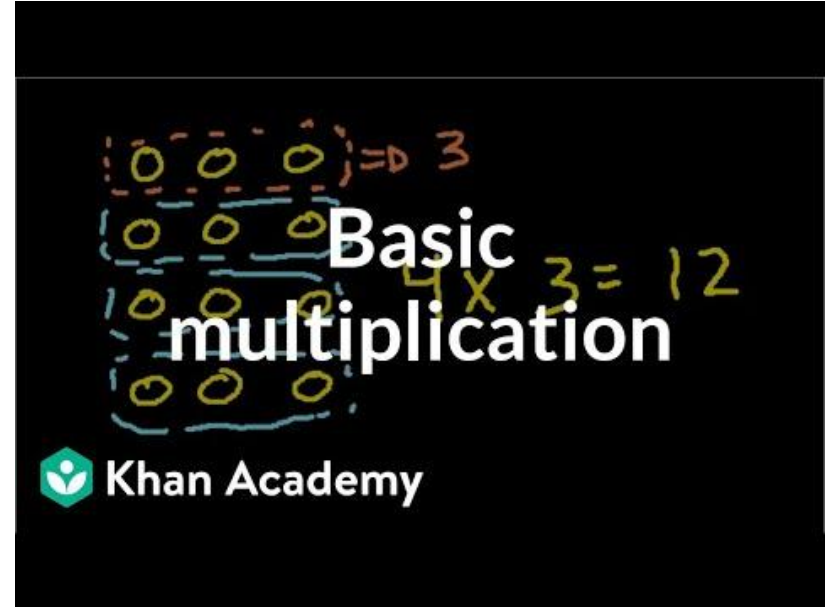
Let's Review with Video Examples



Multiplication
intro


$$3 \times 3 = 3 + 3 + 3 = 9$$

 Khan Academy



Basic
multiplication

$$4 \times 3 = 12$$

 Khan Academy

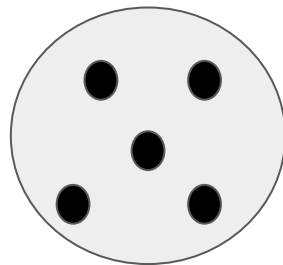
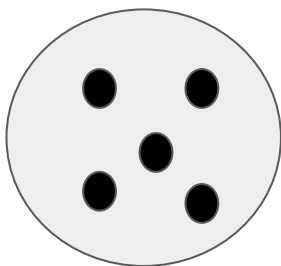
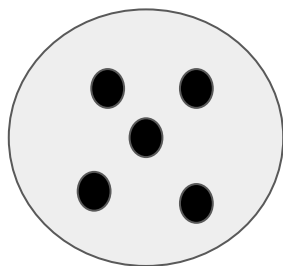
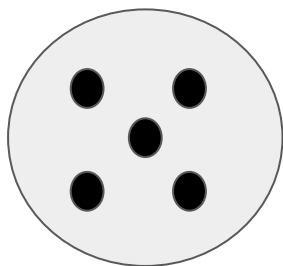
Making Equal Groups

When we multiply, we can solve a question by breaking it into groups.

For example:

There were 4 friends who each need 5 erasers. How many erasers do we need?

Think: 4 groups of 5



5, 10, 15, 20

I would need 20 erasers.

Repeated Addition

I can use repeated addition to help me solve multiplication.

I have 8 dogs. I am going to give each one 4 bones. How many bones would I need?

Dog #1	Dog #2	Dog#3	Dog#4	Dog#5	Dog#6	Dog#7	Dog#8							
4	+	4	+	4	+	4	+	4	+	4	+	4	=	32

8 dogs get 4 bones each, which equals 32 bones in total.

Skip Counting

Once I have my groups, I can use skip counting to find the total.

I have 8 dogs. I am going to give each one 4 bones. How many bones would I need?

Dog #1	Dog #2	Dog#3	Dog#4	Dog#5	Dog#6	Dog#7	Dog#8							
4	+	4	+	4	+	4	+	4	+	4	+	4	=	32
4		8		12		16		20		24		28		32

8 dogs get 4 bones each, which equals 32 bones in total.

****We can use the “multiplication placemat” to show and work out our answer.**

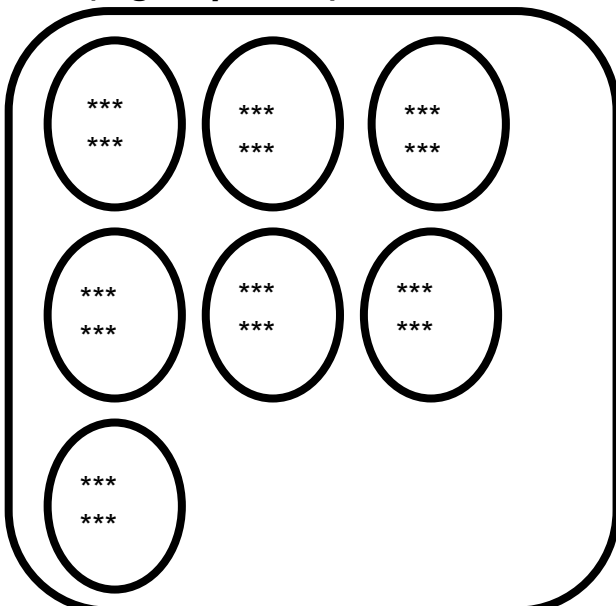
Problem

$$7 \times 6$$

Repeated Addition

$$6 + 6 + 6 + 6 + 6 + 6 + 6 = 42$$

Show as equal groups
(7 groups of 6)



Skip Counting

$$6, 12, 18, 24, 30, 36, 42$$

$$7 \times 6 = 42$$

Write the multiplication sentence

*****Now you try!***

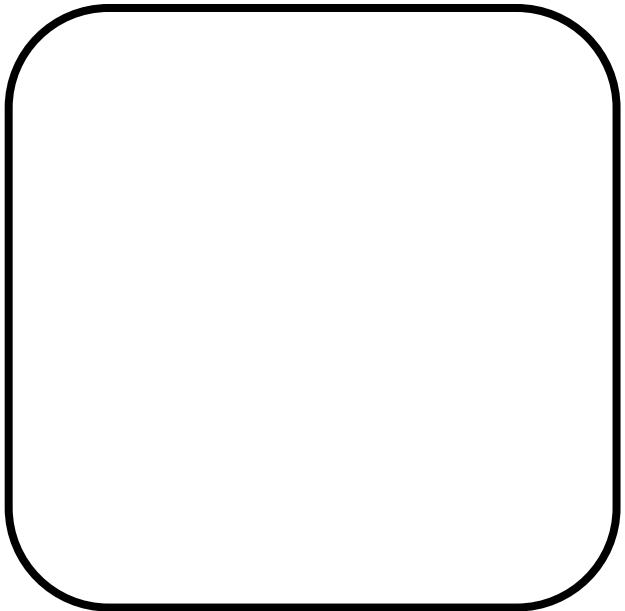
Problem

6×4

Repeated Addition



Show as equal groups



Skip Counting



Write the multiplication sentence

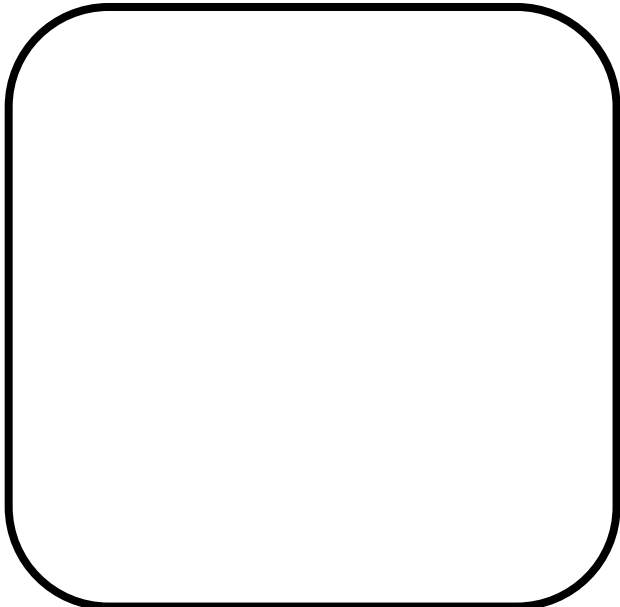
Problem

$$7 \times 3$$

Repeated Addition



Show as equal groups



Skip Counting



Write the multiplication sentence

Multiplication Game: Making Piles

1. Choose how many piles to make. Choose between 4 and 8.
2. Choose how many things to put in each pile. Choose between 4 and 8.
3. Write an equation ($___ \times ___ = ___$), and figure out how many things you have altogether.
4. Change your numbers each time.

How many piles?	How many in each pile?	Equation(s)	Picture

Multiplication Word Problems**Read the problems carefully and solve.**

Sam had 5 packages delivered. Each package had 4 presents in it. How many presents did Sam have in all?

Repeated Addition:

Multiplication:

Alice's mom packed 12 lunches for a picnic. If she packed 2 sandwiches in each lunch, how many sandwiches did she pack?

Repeated Addition:

Multiplication:

Suzy had 4 large birthday cakes. Her mom put 8 candles on each cake. How many candles did Suzy use in total?

Repeated Addition:

Multiplication:

Tim has 7 kittens. Each kitten has 5 toys to play with. How many toys do the kittens have altogether?

Repeated Addition:

Multiplication:

Bob bought 5 boxes of cereal. Each box contained 10 small prizes. How many prizes did Bob get altogether?

Repeated Addition:

Multiplication:

Jane has 12 pairs of shoes. How many individual shoes is that?

Repeated Addition:

Multiplication:

Practice these questions using the Multiplication Placemat on the next slide:

$5 \times 5 =$	$7 \times 8 =$	$6 \times 6 =$	$4 \times 3 =$	$6 \times 7 =$	$5 \times 7 =$
$7 \times 6 =$	$9 \times 5 =$	$8 \times 7 =$	$6 \times 5 =$	$7 \times 2 =$	$5 \times 8 =$
$3 \times 9 =$	$8 \times 5 =$	$3 \times 3 =$	$5 \times 4 =$	$7 \times 5 =$	$6 \times 8 =$
$6 \times 5 =$	$3 \times 4 =$	$7 \times 7 =$	$6 \times 3 =$	$8 \times 6 =$	$5 \times 9 =$

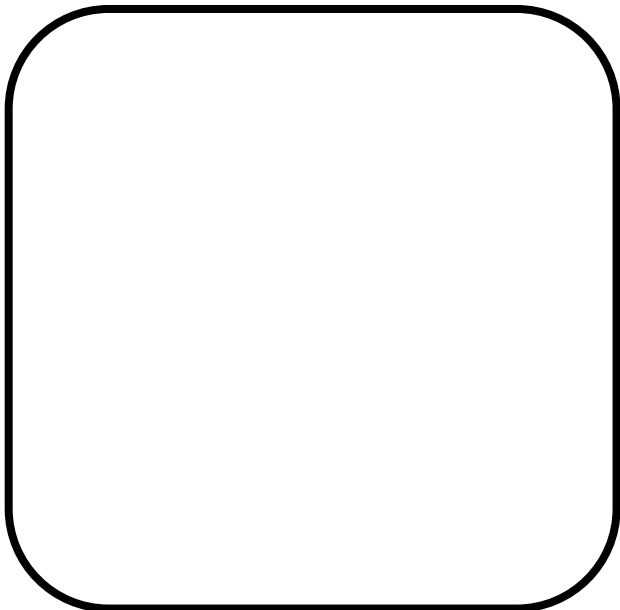
Problem




Repeated Addition



Show as equal groups



Skip Counting



Write the multiplication sentence