

# MENTAL MATH

# MULTIPLICATION

## Bundle

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**Two Different Ways**  
There are many ways to break arrays into parts! We can choose the way that makes it easiest to find the total number of objects.

**Example:** This array shows 12 groups of 4.

10 groups of 4 is 40.  
6 groups of 4 is 24.

In both examples, we can see that there are 48 dots in all.

Which way feels the easiest for you to find the total number of dots? Why?

6 groups of 4 is 24.

different ways to find the total

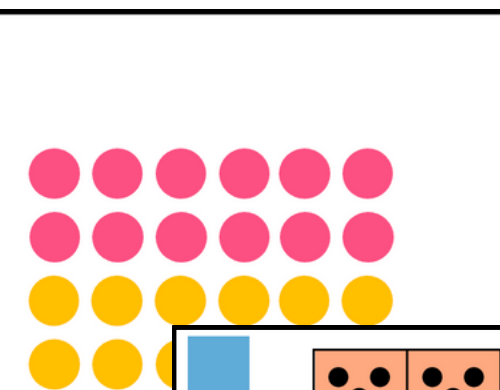
10 groups of 3 is \_\_\_\_  
2 groups of 3 is \_\_\_\_

**Extra Challenge!**  
Can you use this way of visualizing to solve BIG multiplication problems?  
Show your thinking here.

$24 \times 5 =$  \_\_\_\_

$37 \times 7 =$  \_\_\_\_

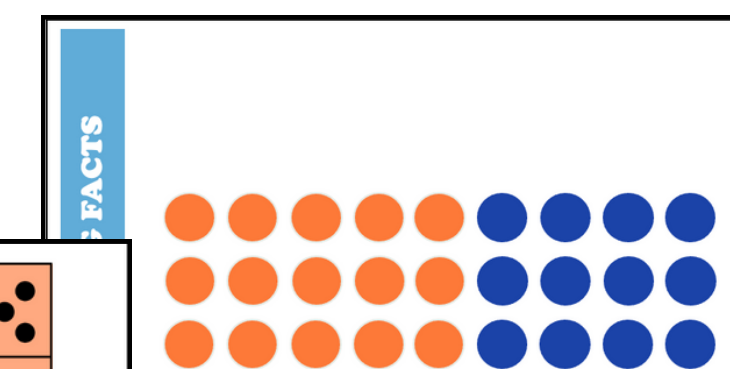
$18 \times 4 =$  \_\_\_\_



**CONNECTING FACTS**

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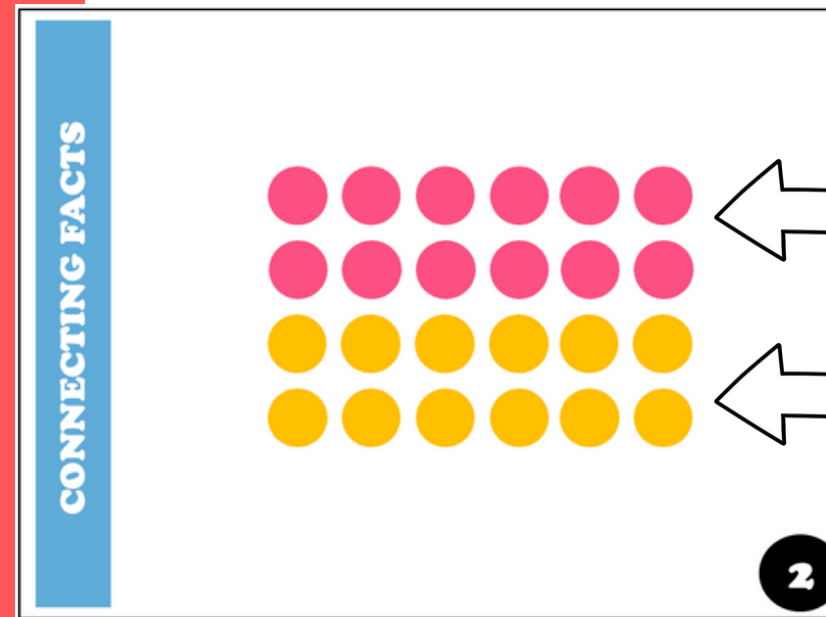
**CONNECTING FACTS**

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Wondering why your students can't seem to master the multiplication facts?

Number sense is built through understanding. But many of our students can't understand because concepts are being taught abstractly rather than concretely or pictorially.

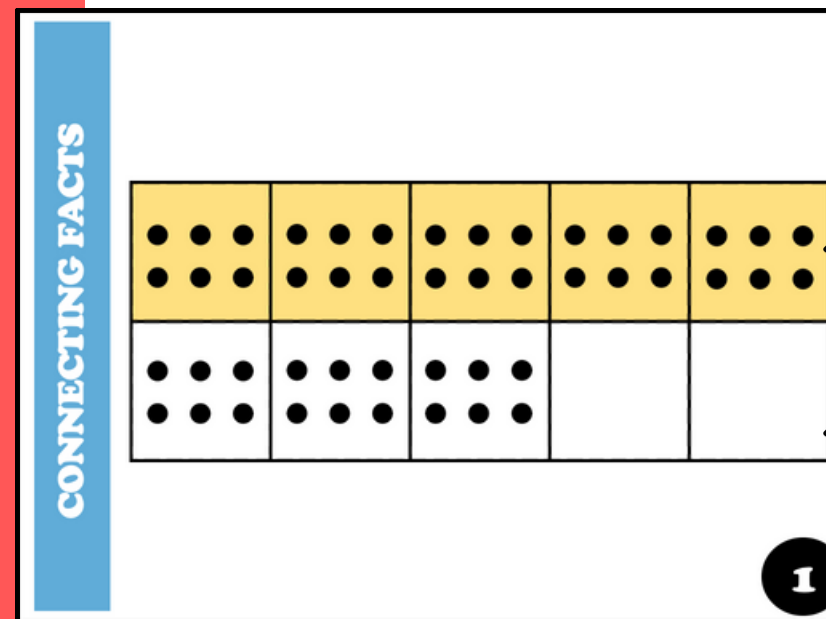
The activities in this bundle include powerful visuals that will help your students **make sense of multiplication.**



2 groups of 6 is 12

2 groups of 6 is 12

So 4 groups of 6 is 24!



5 groups of 6 is 30

3 groups of 6 is 18

So 8 groups of 6 is 48!

These activities will fill the gaps in understanding that can lead to poor number sense and difficulty with math facts.

**Two Different Ways**  
 There are many ways to break arrays into parts! We can choose the way that makes it easiest to find the total number of objects.

**Example:** This array shows 12 groups of 4.

10 groups of 4 is 40.  
 2 groups of 4 is 8.  
 6 groups of 4 is 24.  
 6 groups of 8 is 48.

Now you try! Let's break up each array in two different ways.

4 groups of 5 is \_\_\_\_  
 3 groups of 5 is \_\_\_\_  
 So, 7 groups of 5 is \_\_\_\_

5 groups of 5 is \_\_\_\_  
 2 groups of 5 is \_\_\_\_  
 So, 7 groups of 5 is \_\_\_\_

Both ways show that  $7 \times 5 =$  \_\_\_\_  
 Circle the option that you like best.

2 groups of 5 is \_\_\_\_  
 2 groups of 5 is \_\_\_\_

Both ways show that  $4 \times 5 =$  \_\_\_\_  
 Circle the option that you like best.

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**Solving BIG Problems!**  
 The break apart strategy can be used to solve ANY multiplication problem! Do you think we could solve  $25 \times 7$  in our heads using this strategy? Let's see!

How could we imagine breaking up 25 groups of 7?

$25 \times 7$   
 20 5

**Option 1:**  
 20 groups of 7 ( $20 \times 7$ ) is 140  
 5 groups of 7 ( $5 \times 7$ ) is 35  
 So,  $25 \times 7 = 175$

$25 \times 7$

How could we imagine breaking up 25 groups of 7?

$25 \times 7$   
 10 10 5

**Option 2:**  
 10 groups of 7 (10x7) is 70  
 10 groups of 7 (10x7) is 70  
 5 groups of 7 (5x7) is 35  
 So,  $25 \times 7 = 175$

Now it's your turn! Solve these BIG multiplication problems using the break apart strategy.

$16 \times 6$

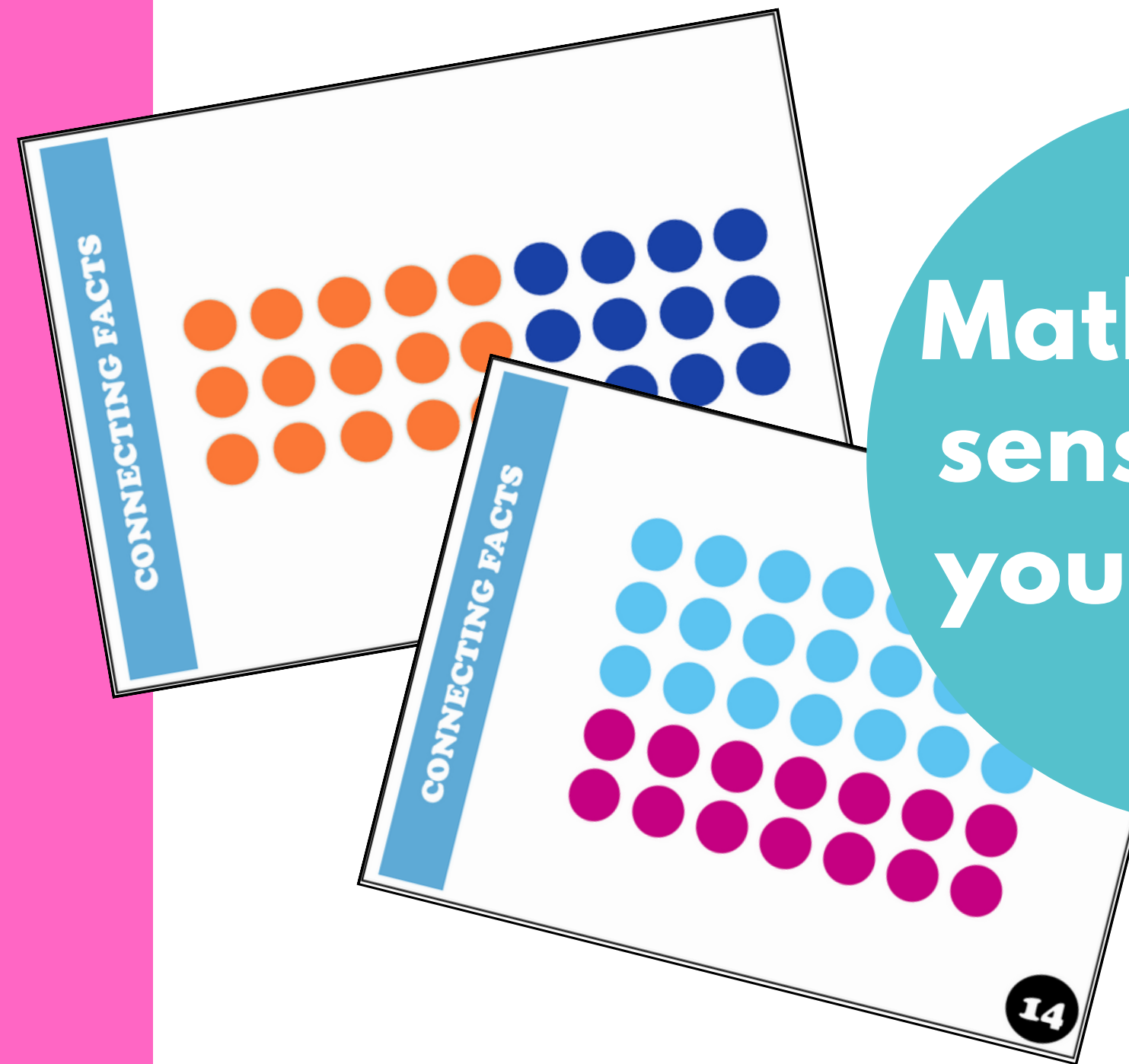
**CONNECTING FACTS**

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**CONNECTING FACTS**

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Help your students build confidence and understanding!



**Math makes sense when you can see it!**