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Skip Counting to Multiply Units of 4

Unit 1 Lesson 8a

Skip Counting to Multiply?

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.

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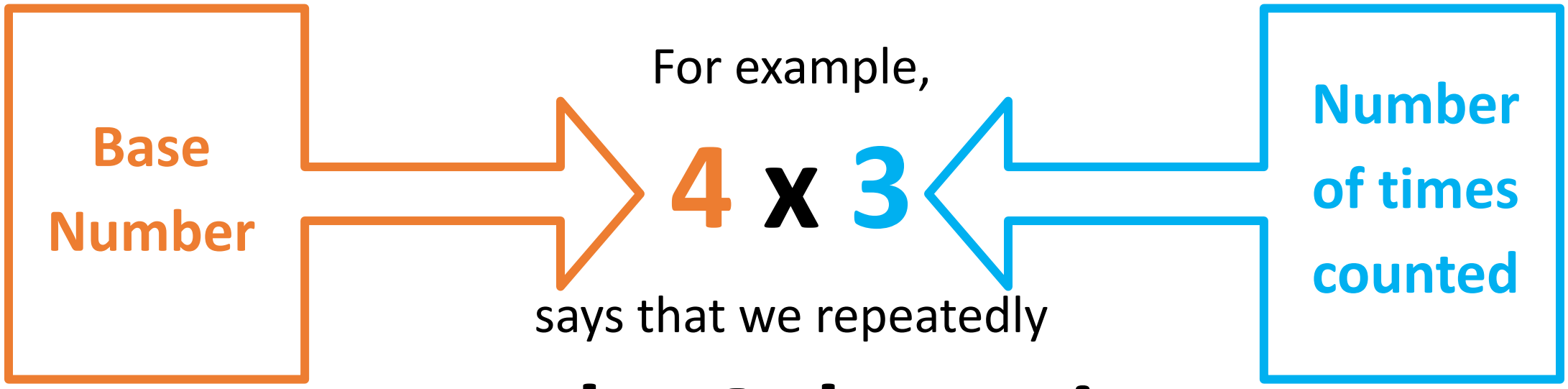
Skip Counting to Multiply?



count by 4 three times

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Skip Counting to Multiply?

4 x 3

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

There are 4 counted circles.

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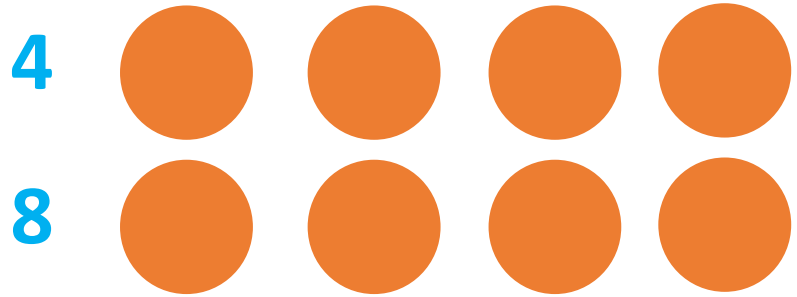
Skip Counting to Multiply?

4 x 3

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



There are 8 counted circles.

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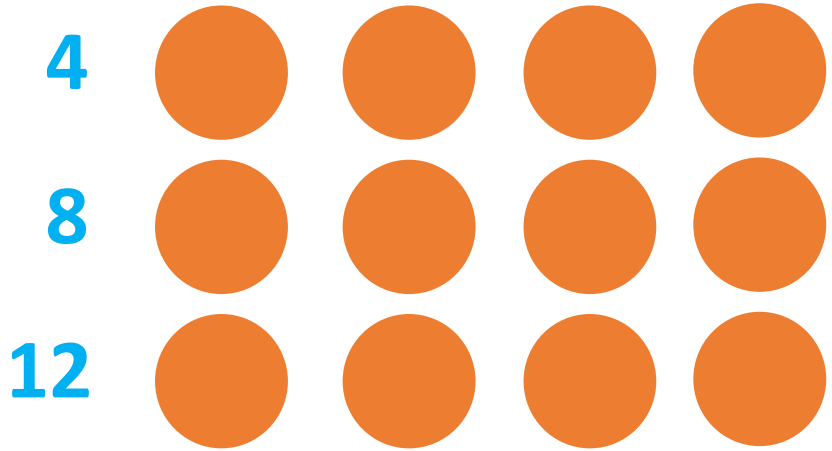
Skip Counting to Multiply?

4 x 3

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



There are 12 counted circles.

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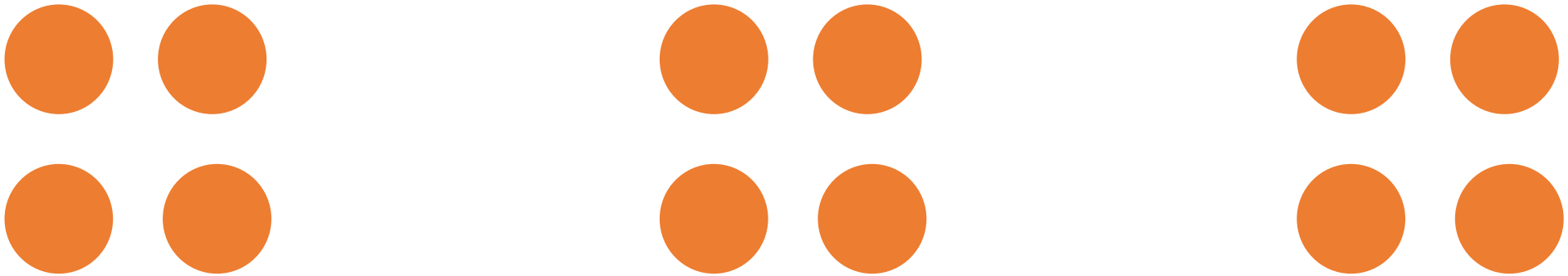
Skip Counting to Multiply?

4 x 3

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

4 + 4 + 4



The sum is 12.

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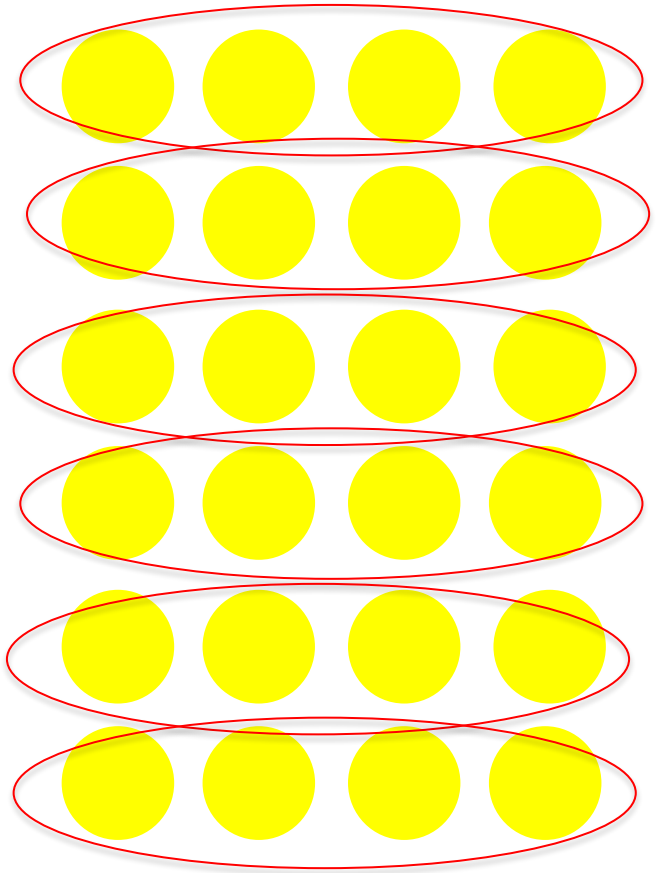
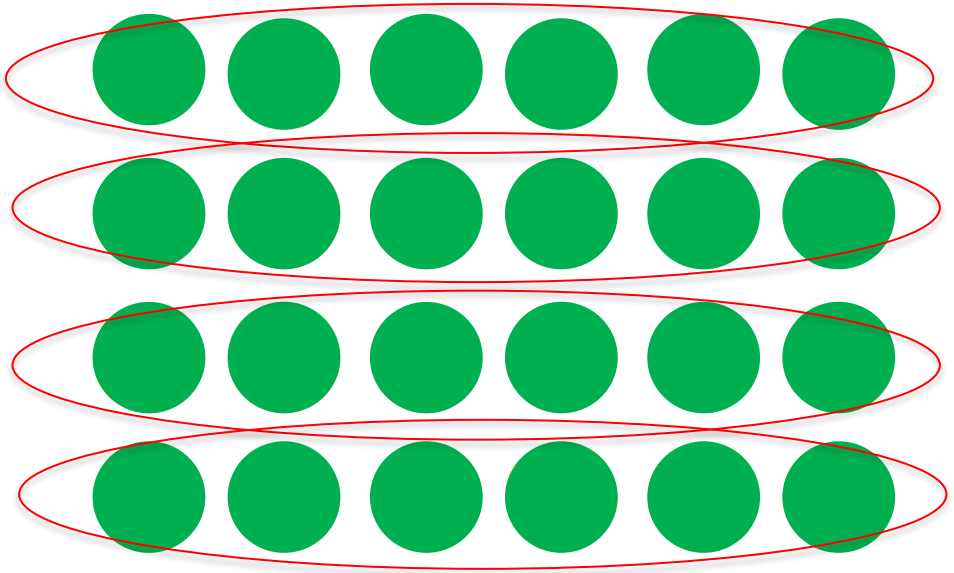
Encircle the rows of the following arrays



6 rows of 4



4 rows of 6

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Count by 4 until 40

4	8	12	16	20
24	28	32	36	40

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¿? Time to Think ¿?

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

We can count by four using the number of rows or columns.

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

Yes. If the rows have 4 items in each, count by four using the rows. Now, if the columns have 4 items in each, count by four using the columns.

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

Yes. Listing down multiples of four is listing down the answer of any number multiplied by 4 starting with the answer 4.

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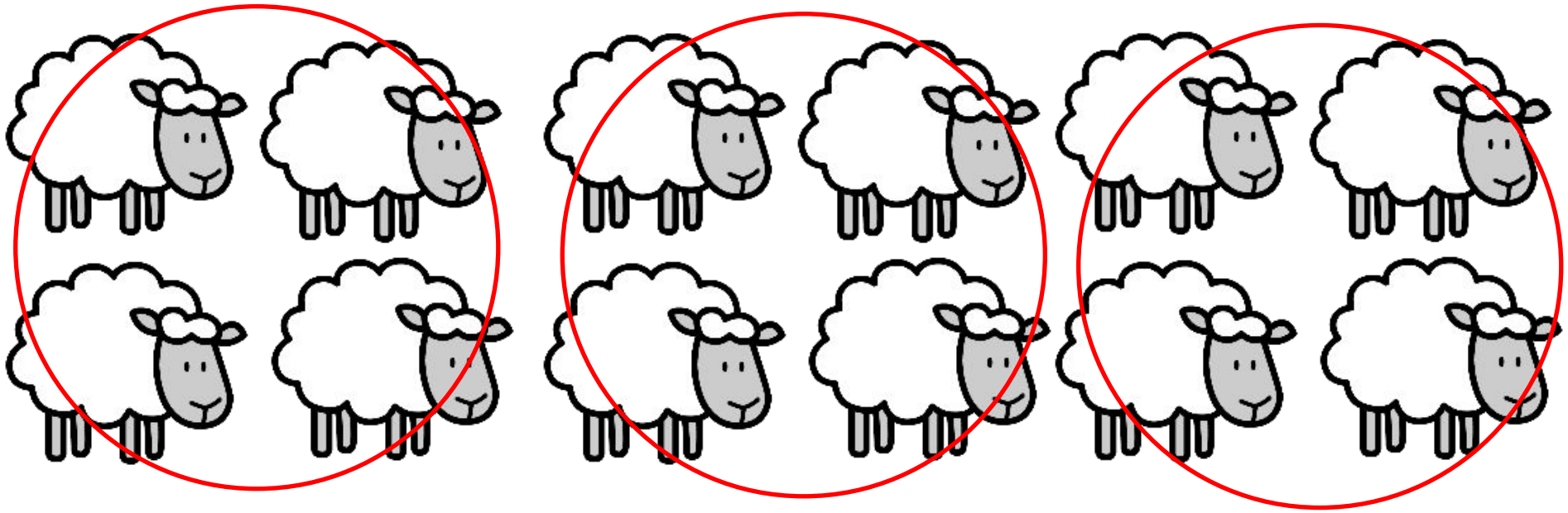
Group the items into groups of 4.



$4 + 4 + 4 = 12$

$3 \times 4 = 12$

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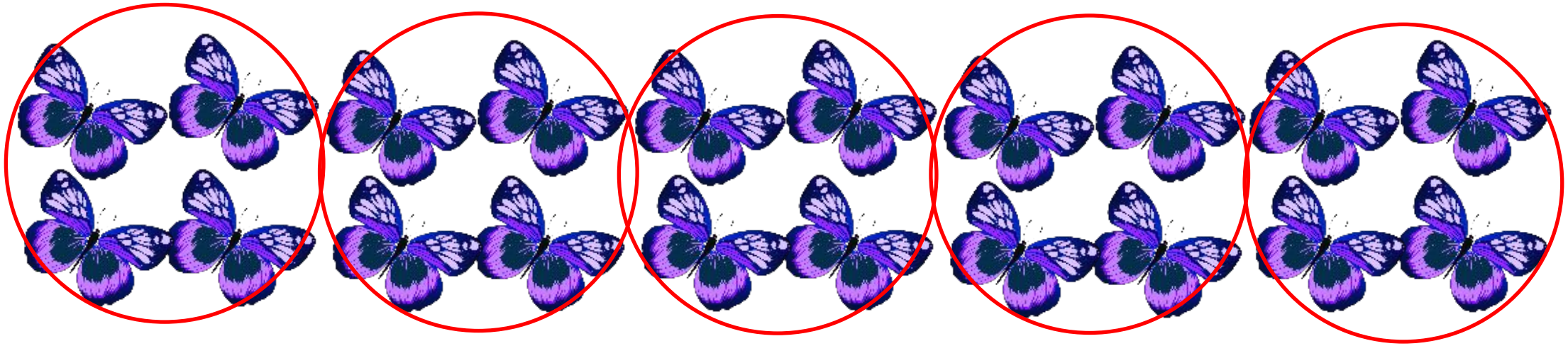
Group the items into groups of 4.



4 + 4 + 4 + 4 + 4 = 20

5 x 4 = 20

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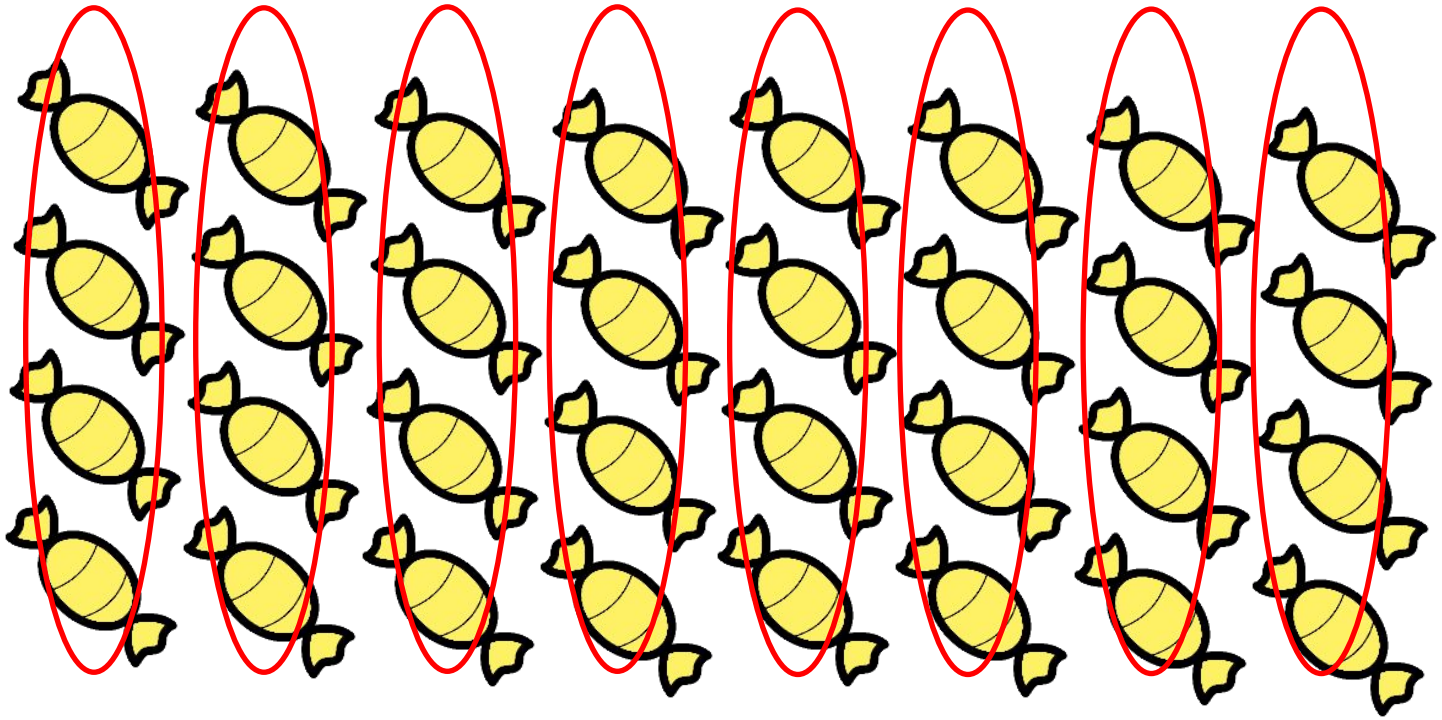
Group the items into groups of 4.



$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 32$

$8 \times 4 = 32$

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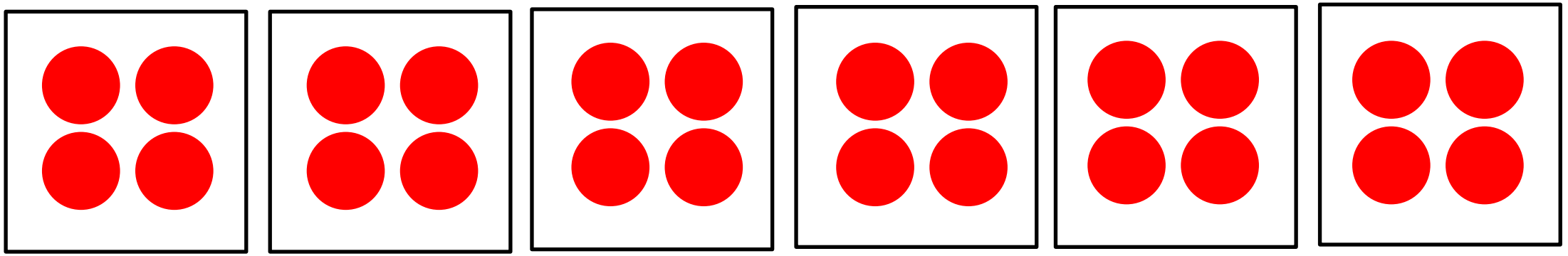
Draw 4 dots inside each square.



$4 + 4 + 4 + 4 + 4 + 4 = 24$

$6 \times 4 = 24$

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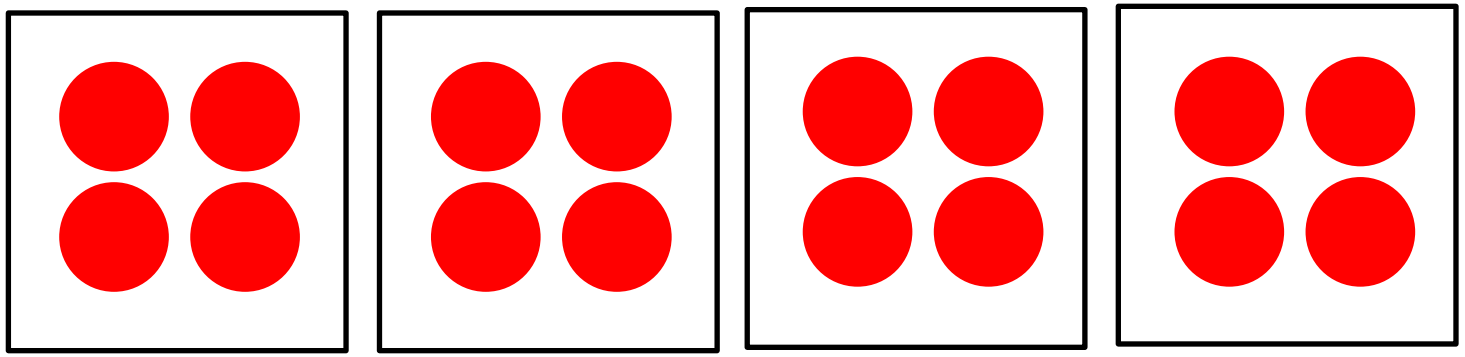
Draw 4 dots inside each square.



$4 + 4 + 4 + 4 = 16$

$4 \times 4 = 16$

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¿? Time to Think ¿?

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

Drawing equal groups can help visualize counting by 4 by grouping each item easily by 4.

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

Repeated addition is related to ski counting using equal groups because of repeatedly having groups with the same value of 4.

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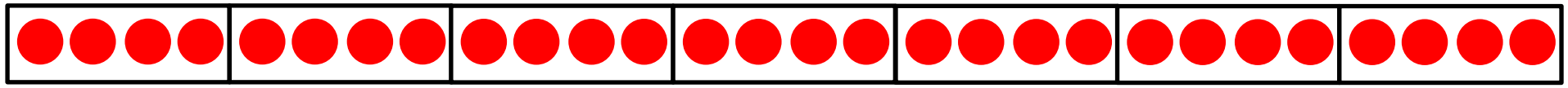
Draw a tape diagram that has 4 items inside each square

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



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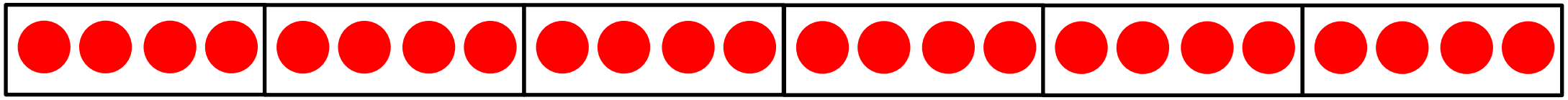
Draw a tape diagram that has 4 items inside each square

Amanda counted her lollipops by four, 6 times.



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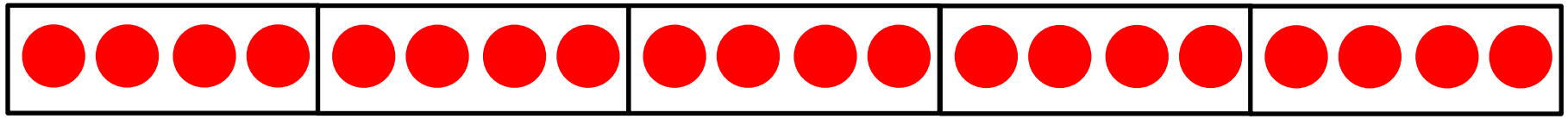
Draw a tape diagram that has 4 items inside each square

Brian put 4 rings in each finger in one hand.



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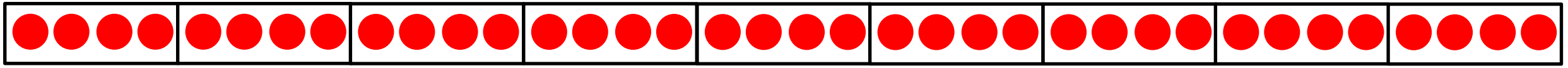
Draw a tape diagram that has 4 items inside each square

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



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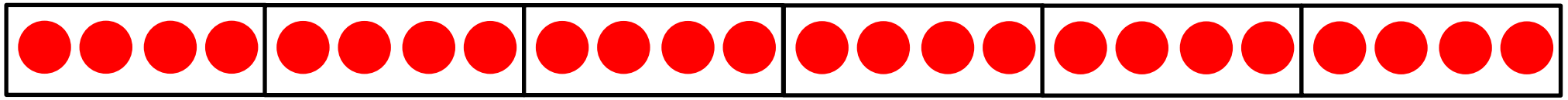
Irene wants to know how much water she will get by placing 4 liters each in 6 jars. Draw a tape diagram.



4 + 4 + 4 + 4 + 4 + 4

6 x 4 = 24 jars

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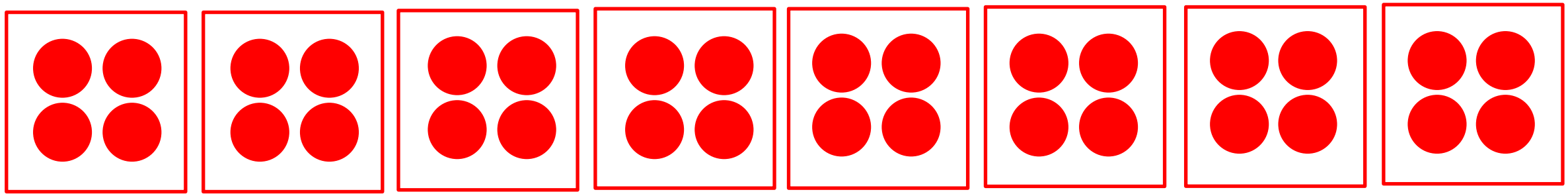
Joshua has 9 paper bags. He put 4 candies in each bag. How many candies does he have? Draw equal groups.



4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4

9 x 4 = 36 candies

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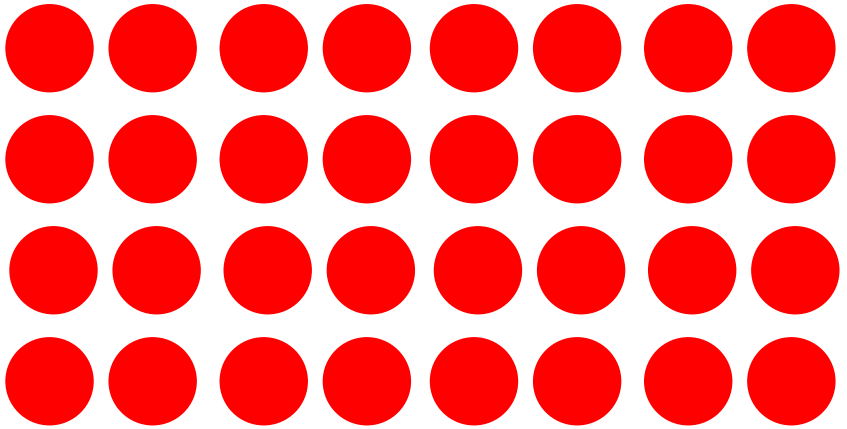
Michael has 4 rows of 8 pebbles. How many pebbles does he have?

Draw an array model.



4 +4 +4 +4 +4 +4 +4 +4

8 x 4 = 32 pebbles

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