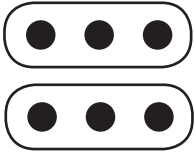


# 2, 5 and 10s Arrays

Arrays are pictures that help us see numbers. Number sentences are shown with dots and arranged into rows and columns.

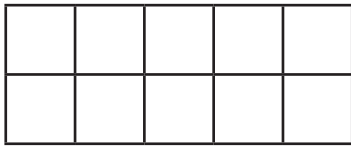
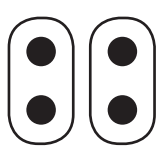
Here is an example:



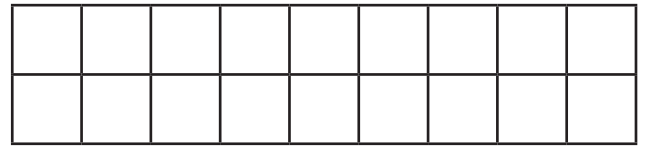
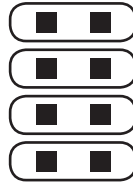
3	+	3	=	6
3	×	2	=	6

1. Write the multiplication calculation and repeated addition for each array.

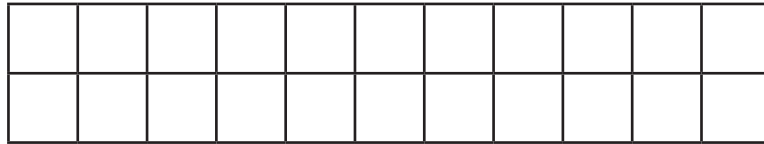
$2 \times 2$



$2 \times 4$

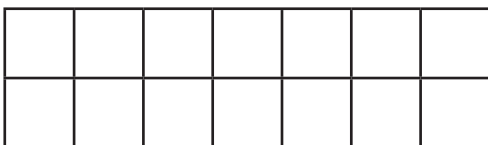
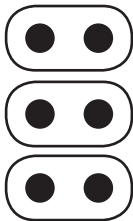


$2 \times 5$

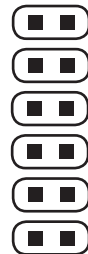


2. Write the multiplication calculation and repeated addition for each array.

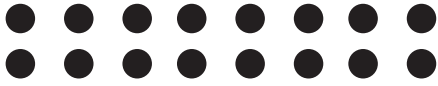
$\_ \times \_$



$\_ \times \_$



3. Samir and Iyla are writing number sentences for this array.



$8 + 2 = 16$   
Samir

$8 + 8 = 16$   
Iyla

Who do you agree with? Why?

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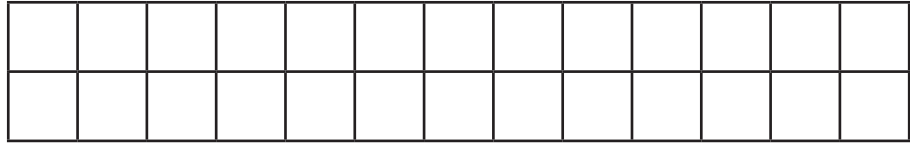
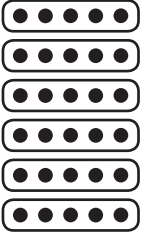
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4. The value of an array is 10. What could the array be?

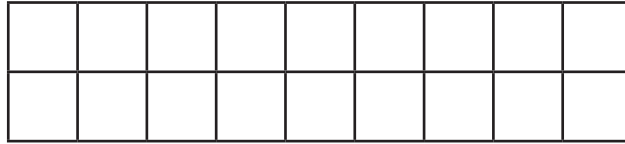
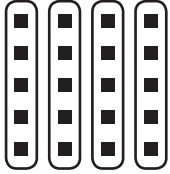
Draw 3 possible arrays to show this. Write the repeated addition and the multiplication calculation for each array.


5. Write the repeated addition and multiplication calculation for each array.

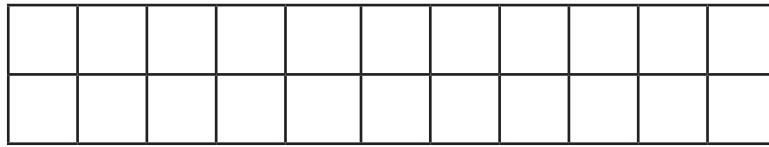
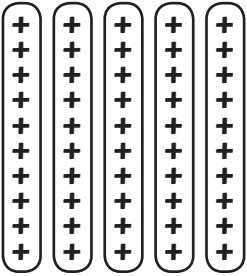
$5 \times 6$



$5 \times 4$

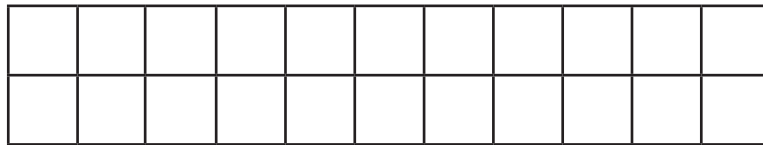
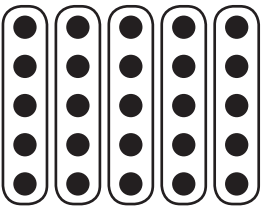


$10 \times 5$

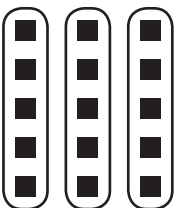


6. Write the repeated addition and multiplication calculation for each array.

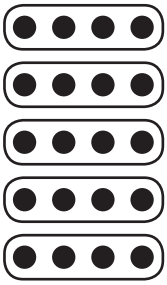
$5 \times \underline{\quad}$



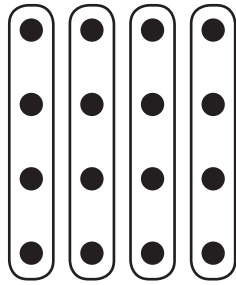
$\underline{\quad} \times 3$



7. Alfie and Sofia are both drawing arrays to show  $4 + 4 + 4 + 4 + 4 = 20$  or  $4 \times 5 = 20$ .



Alfie's array



Sofia's array

Who do you think has drawn the correct array? Why?

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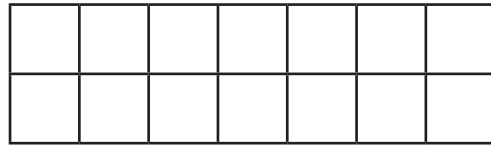
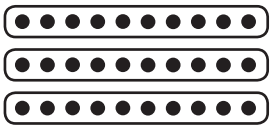
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8. The value of an array is 20. What could the array be?

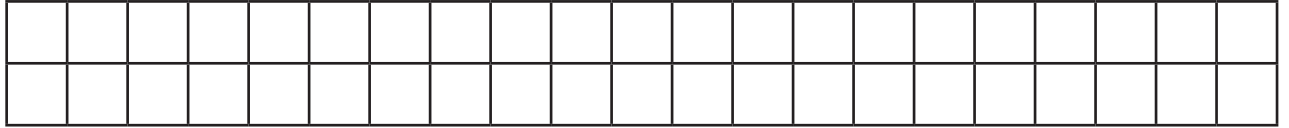
Draw 3 possible arrays to show this and write the repeated addition and the multiplication calculation for each array.


9. Write the repeated addition and multiplication calculation for each array.

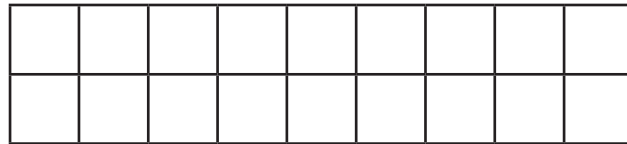
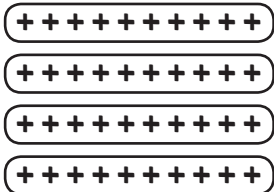
$10 \times 3$



$2 \times 10$

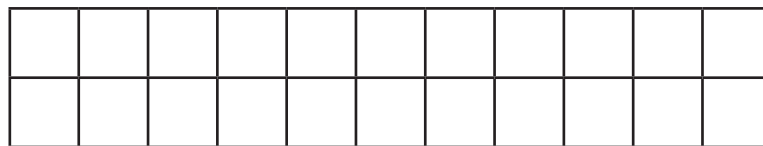
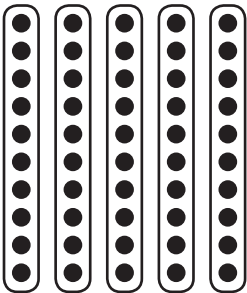


$10 \times 4$

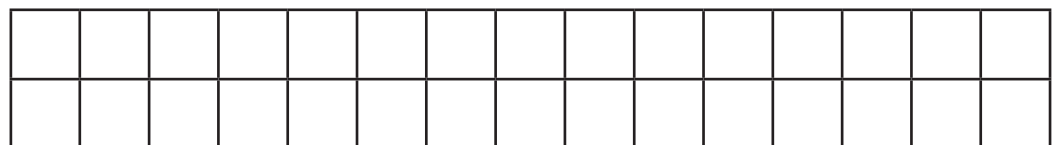
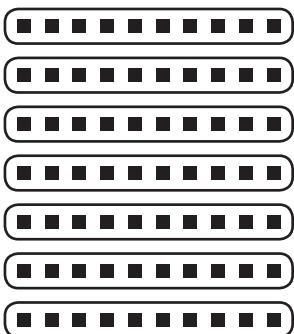


10. Write the repeated addition and multiplication calculation for each array.

$\_ \times 5$



$10 \times \_$



11. Elsie and Arthur are drawing an array for this number sentence:

$$10 + 10 + 10 + 10 = 40$$



It needs to have  
4 rows of 10.

Arthur



It needs to have  
10 rows of 10

Elsie

Who do you agree with? Why?

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12. The value of an array is 30. What could the array be?

Draw 2 possible arrays to show this and write the repeated addition and the multiplication calculation for each array.


## 2, 5 and 10s Arrays - Answers

1. Write the repeated addition and multiplication calculation for each array.

$$2 + 2 = 4$$

$$2 + 2 + 2 + 2 = 8$$

$$2 + 2 + 2 + 2 + 2 = 10$$

$$2 \times 2 = 4$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

2. Write the repeated addition and multiplication calculation for each array.

$$2 + 2 + 2 = 6$$

$$2 + 2 + 2 + 2 + 2 + 2 = 12$$

$$2 \times 3 = 6$$

$$2 \times 6 = 12$$

3. Samir and Iyla are writing number sentences for the array.

Who do you agree with? **Iyla**

Why? **Because Iyla is explaining that  $2 \times 8 = 16$ .**

**Samir has added the number of rows and columns together to give him 16. But if Samir had double-checked his answer, he could have spotted his mistake that  $8 + 2$  doesn't equal 16.**

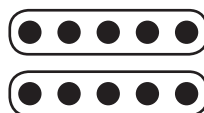
4. The value of an array is 10. What could the array be?

Draw 3 possible arrays to show this and write the repeated addition and the multiplication calculation for each array.



$$2 + 2 + 2 + 2 + 2 = 10$$

$$2 \times 5 = 10$$



$$5 + 5 = 10$$

$$5 \times 2 = 10$$



$$10 \times 1 = 10$$

5. Write the repeated addition and multiplication calculation for each array.

$$5 + 5 + 5 + 5 + 5 + 5 = 30$$

$$10 + 10 + 10 + 10 + 10 = 50$$

$$5 \times 6 = 30$$

$$10 \times 5 = 50$$

$$5 + 5 + 5 + 5 = 20$$

$$5 \times 4 = 20$$

6. Write the repeated addition and multiplication calculation for each array.

$$5 + 5 + 5 + 5 + 5 + 5 = 30$$

$$5 + 5 + 5 = 15$$

$$5 \times 6 = 30$$

$$5 \times 3 = 15$$

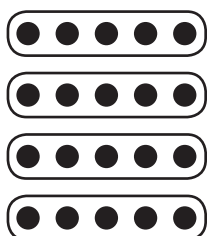
7. Alfie and Sofia are both drawing arrays to show  $4 + 4 + 4 + 4 + 4 = 20$  or  $5 \times 4 = 20$

Who do you think has drawn the correct array? **Alfie**

Why? **Alfie has shown 5 rows of 4, which is the same as  $4 + 4 + 4 + 4 + 4 = 20$  or  $5 \times 4 = 20$ . Sofia has shown 4 rows of 4 = 16.**

8. The value of an array is 20. What could the array be?

Draw 3 possible arrays to show this and write the repeated addition and multiplication calculation for each array.



$$5 + 5 + 5 + 5 = 20$$

$$5 \times 4 = 20$$

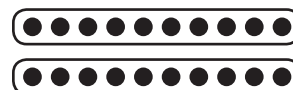


$$2 + 2 + 2 + 2 +$$

$$2 + 2 + 2 + 2 +$$

$$2 + 2 = 20$$

$$2 \times 10 = 20$$



$$10 + 10 = 20$$

$$10 \times 2 = 10$$



9. Write the repeated addition and multiplication calculation for each array.

$$10 + 10 + 10 = 30$$

$$10 + 10 + 10 + 10 = 40$$

$$10 \times 3 = 30$$

$$10 \times 4 = 40$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 20$$

$$2 \times 10 = 20$$

10. Write the repeated addition and multiplication calculation for each array.

$$10 + 10 + 10 + 10 + 10 = 50$$

$$10 + 10 + 10 + 10 + 10 + 10 + 10 = 70$$

$$10 \times 5 = 50$$

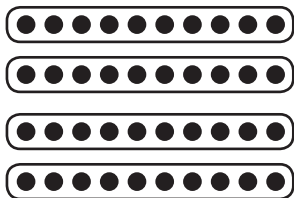
$$10 \times 7 = 70$$

Elsie and Arthur are drawing an array for this number sentence:

$$10 + 10 + 10 + 10 = 40$$

Who do you agree with? **Arthur**

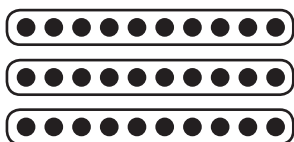
Why? **Arthur is explaining that he will draw the array to show  $10 \times 4$ . This will look like this:**



**Elsie's array would show  $10 \times 10$ . This would be incorrect as  $10 \times 10 = 100$ .**

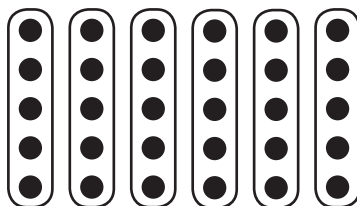
12. The value of an array is 30. What could the array be?

Write the repeated addition and multiplication calculation for each array.



$$10 + 10 + 10 = 30$$

$$10 \times 3 = 30$$



$$5 + 5 + 5 + 5 + 5 + 5 = 30$$

$$5 \times 6 = 30$$



$$3 + 3 + 3 + 3 +$$

$$3 + 3 + 3 + 3 +$$

$$3 + 3 = 30$$

$$3 \times 10 = 30$$