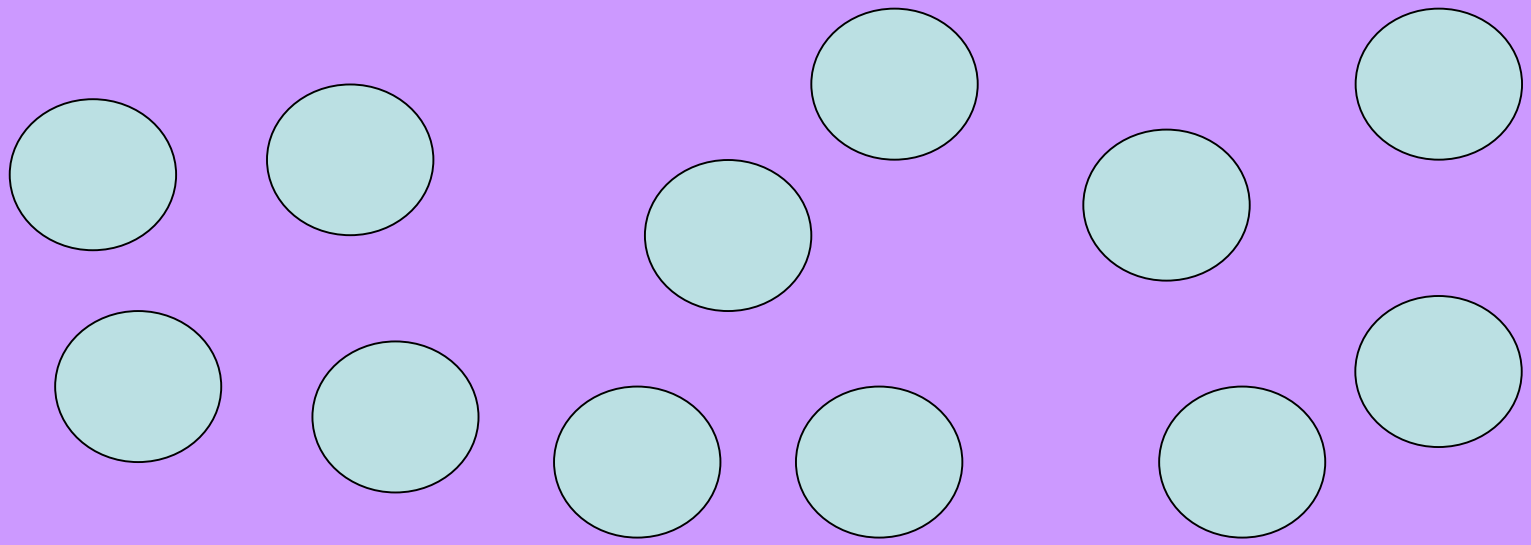
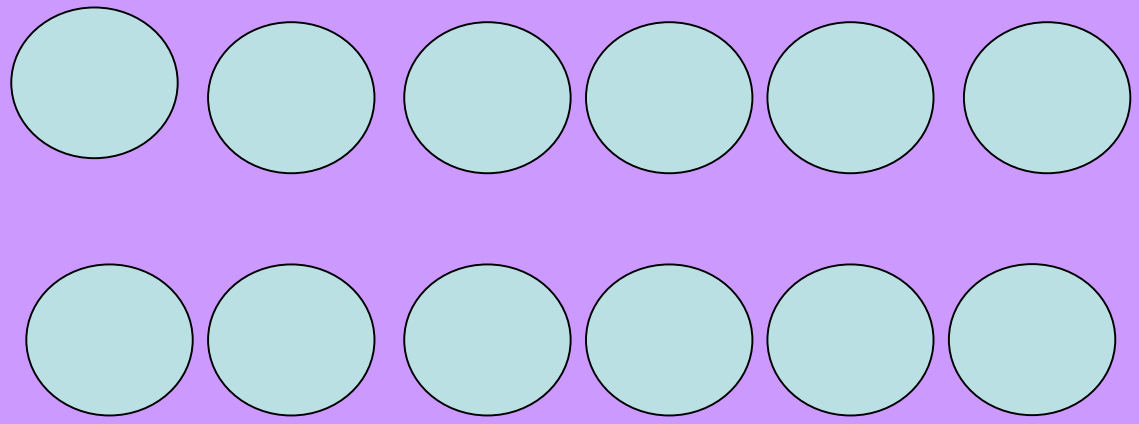
Apple Arrays

Learning Objective:
To calculate multiplication and division facts for the 2, 5 and 10 times tables

I have 12 counters.



How could I arrange them into equal rows?



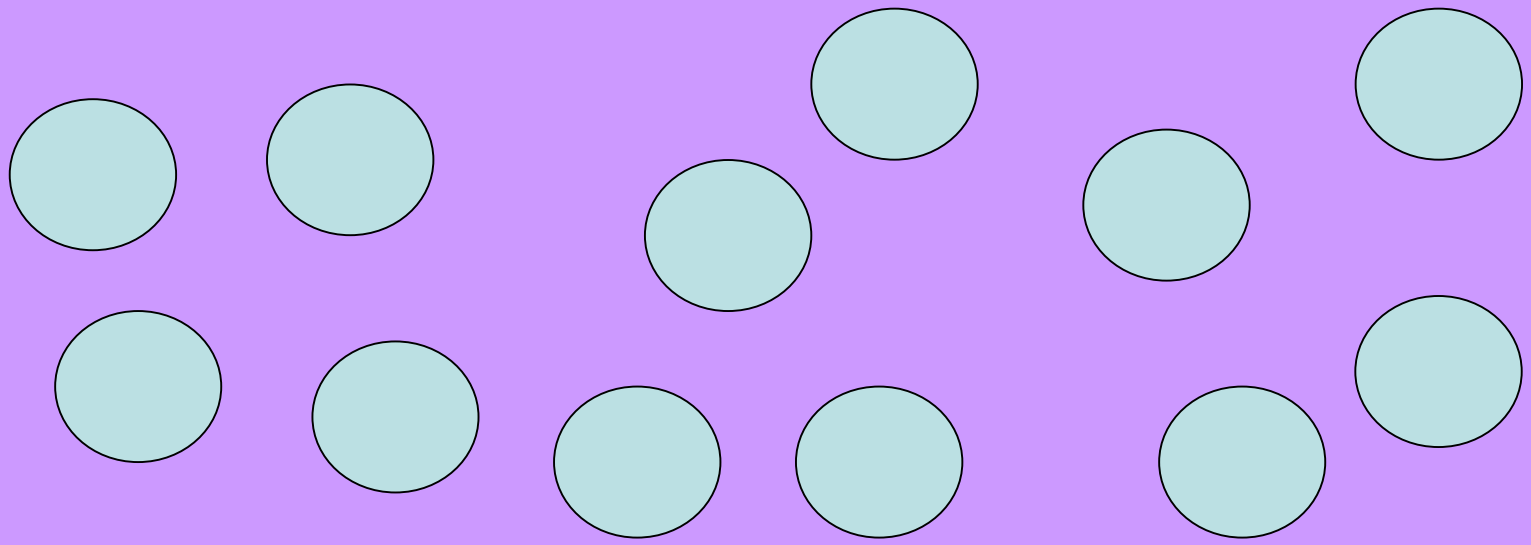
What number sentences could you write to go with this array?

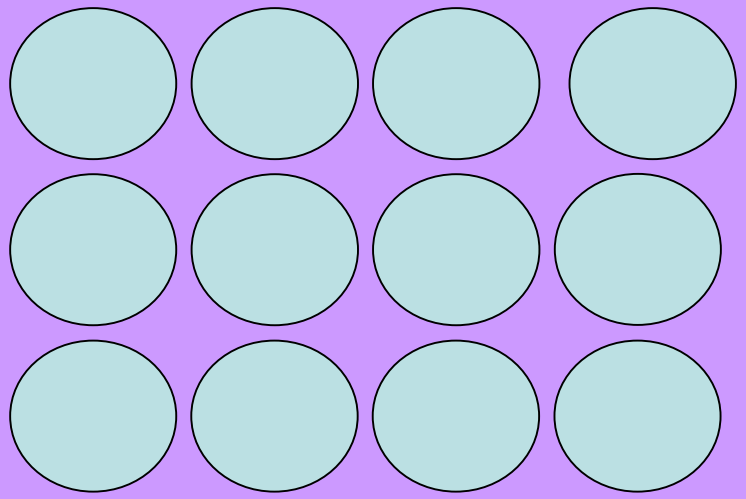
$2 \times 6 = 12$ $6 \times 2 = 12$

$6 + 6 = 12$

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

Can you think of any other ways to arrange the counters?





What number sentences could you write to go with this array?

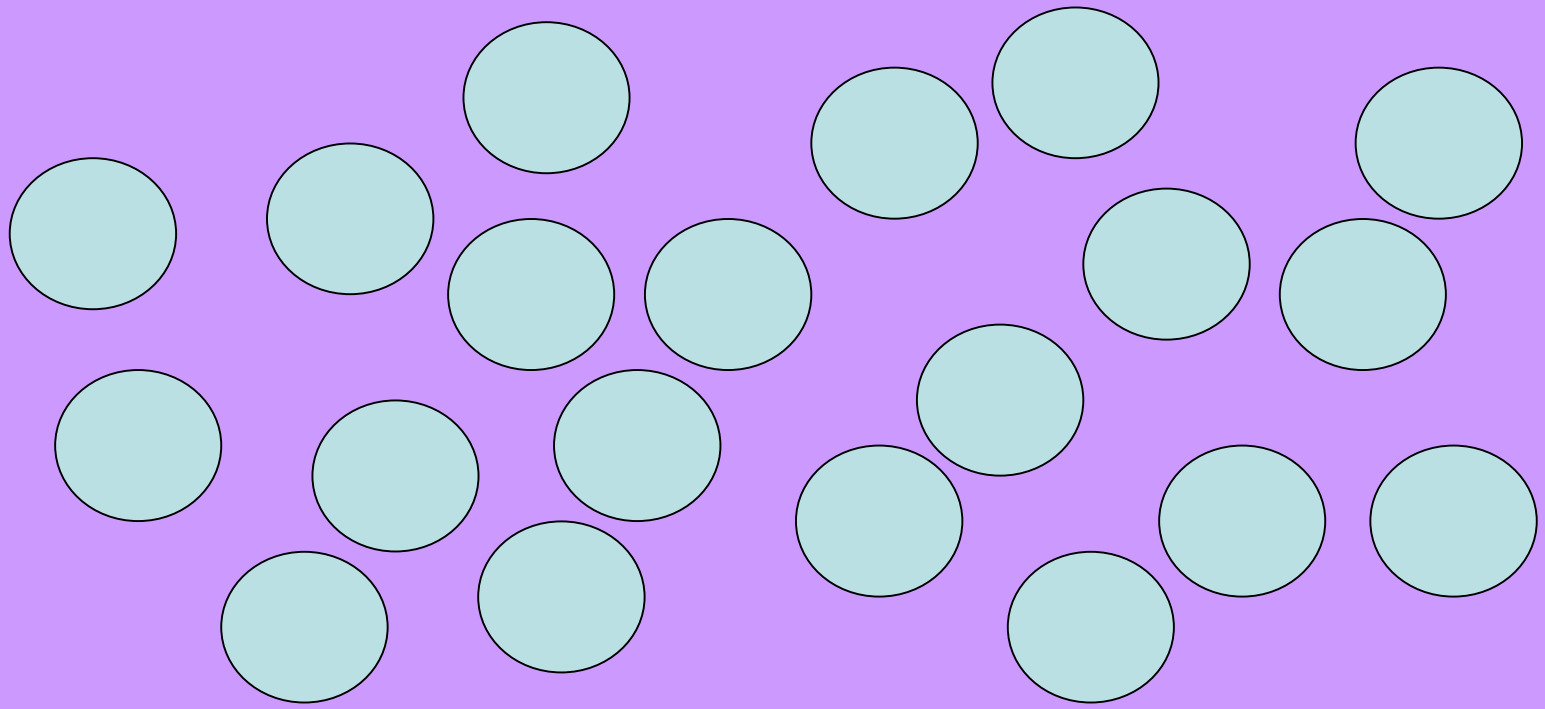
3 x 4 = 12

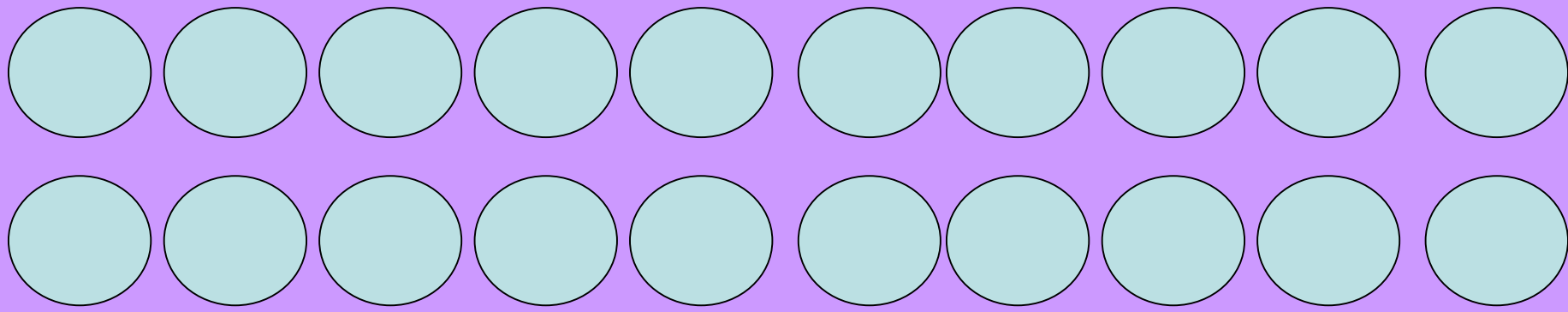
4 x 3 = 12

4 + 4 + 4 = 12

3 + 3 + 3 + 3 = 12

Could you arrange 20 counters?





What number sentences could you write to go with this array?

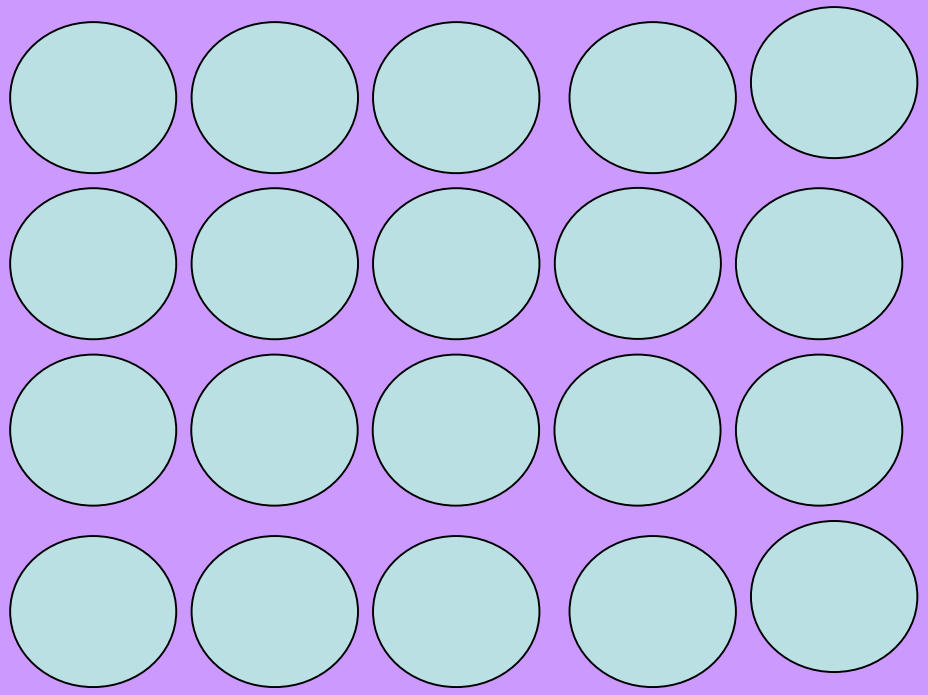
$2 \times 10 = 20$

$10 \times 2 = 20$

$10 + 10 = 20$

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

OR ...



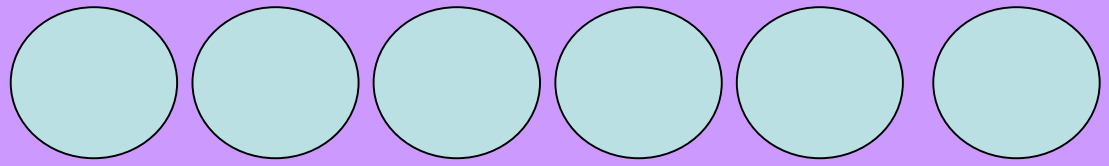
$5 \times 4 = 20$

$4 \times 5 = 20$

$4 + 4 + 4 + 4 + 4 = 20$

$5 + 5 + 5 + 5 = 20$

Now try doing this on your own.

6 counters 

14 counters

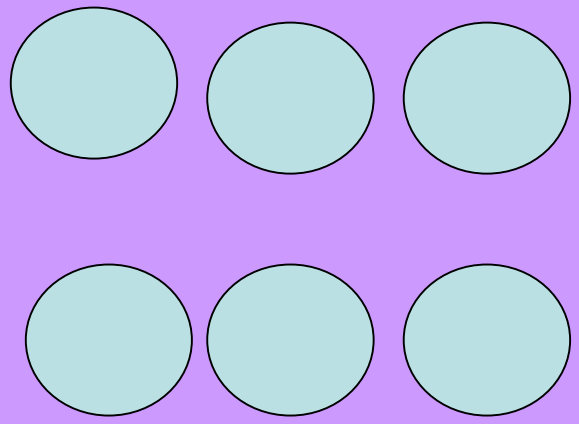
15 counters

9 counters

8 counters

18 counters

6 counters



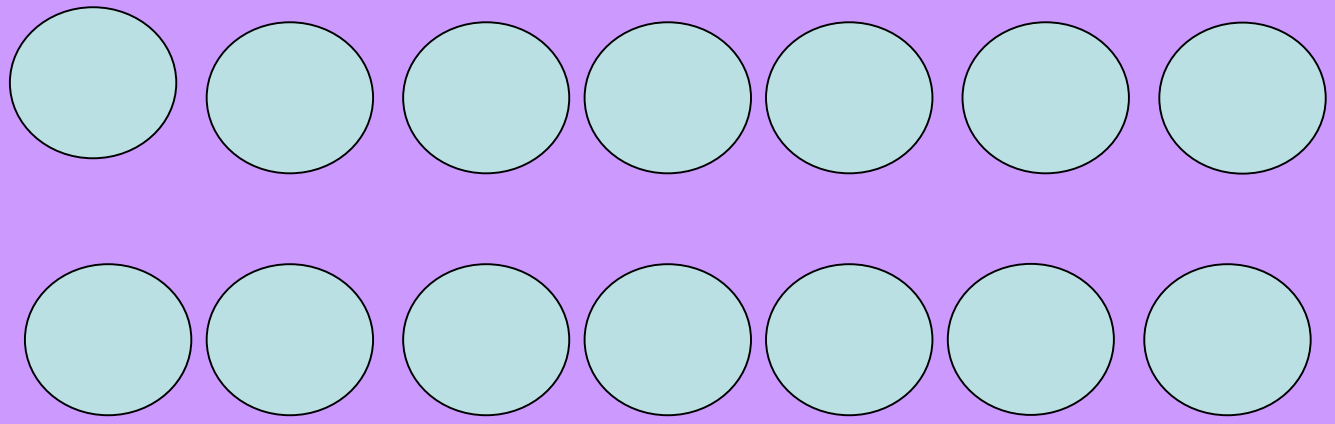
2 x 3 = 6

3 x 2 = 6

3 + 3 = 6

2 + 2 + 2 = 6

14 counters

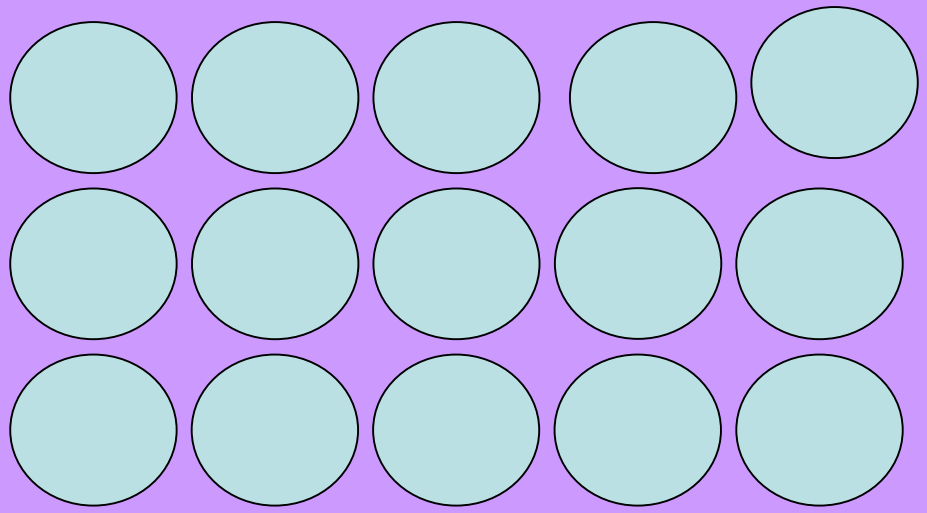


$2 \times 7 = 14$ $7 \times 2 = 14$

$7 + 7 = 14$

$2 + 2 + 2 + 2 + 2 + 2 + 2 = 14$

15 counters



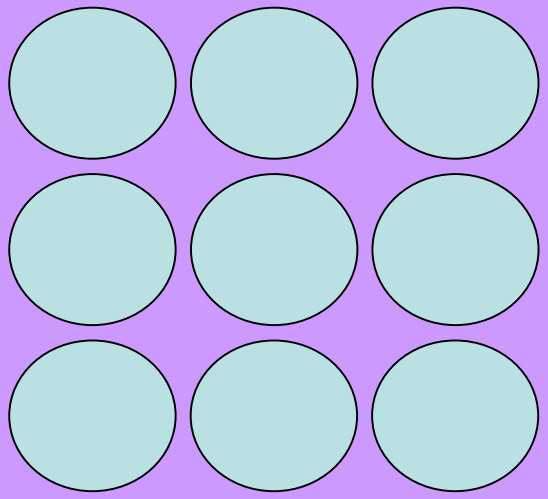
$5 \times 3 = 15$

$3 \times 5 = 15$

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

$5 + 5 + 5 = 15$

9 counters



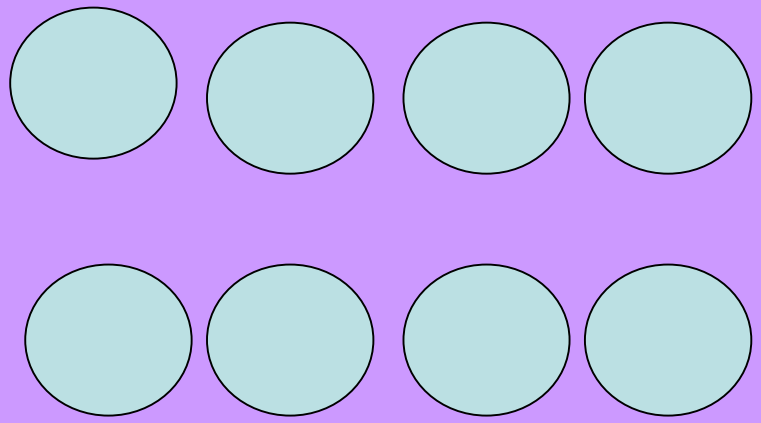
$3 \times 3 = 9$

$3 \times 3 = 9$

$3 + 3 + 3 = 9$

$3 + 3 + 3 = 9$

8 counters



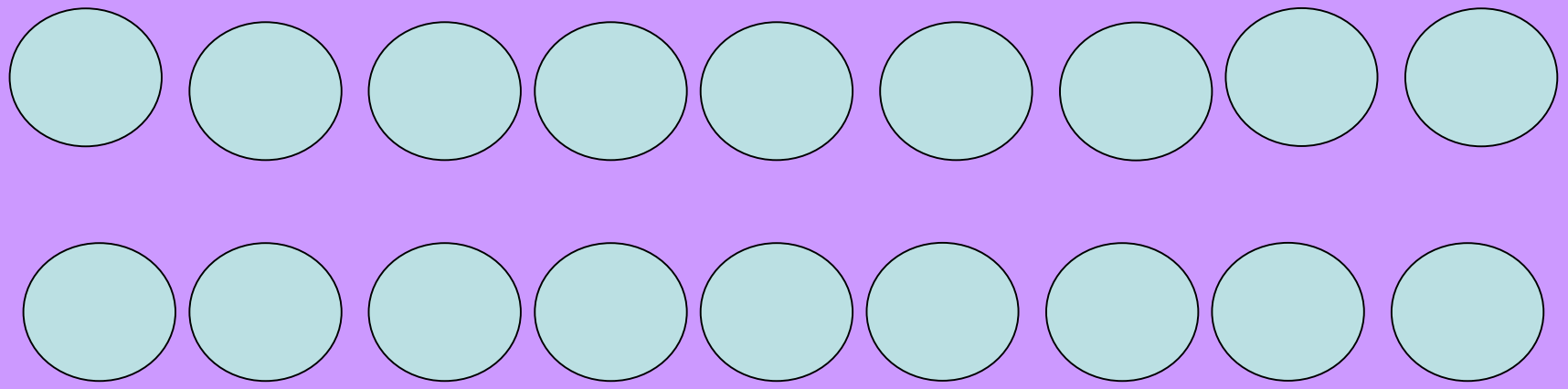
$2 \times 4 = 8$

$4 \times 2 = 8$

$4 + 4 = 8$

$2 + 2 + 2 + 2 = 8$

18 counters



$2 \times 9 = 18$

$9 \times 2 = 18$

$9 + 9 = 18$

$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18$

Task: Now use your knowledge of the 2, 5 and 10 times tables to complete the multiplication and division facts in the ‘apple arrays’ activity.

Remember – multiplication and division are the inverse of each other!