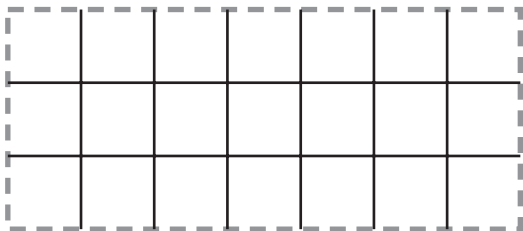
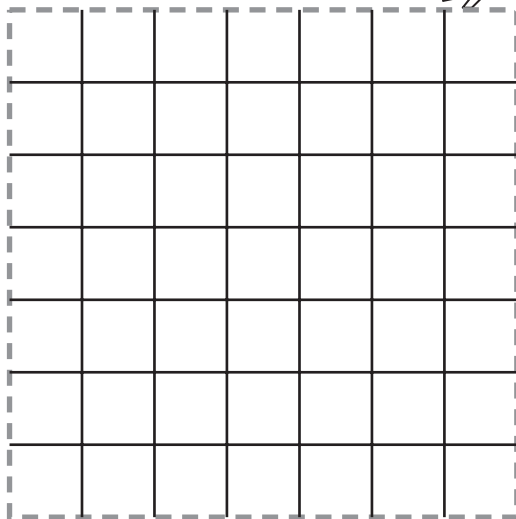
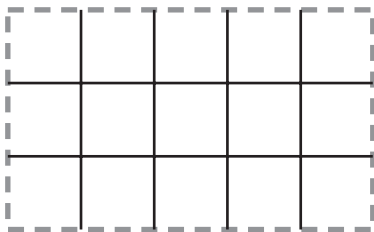
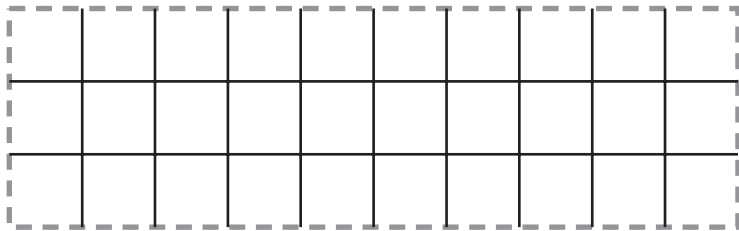
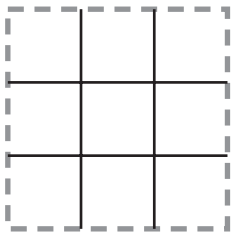
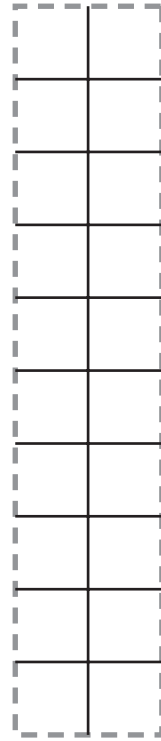
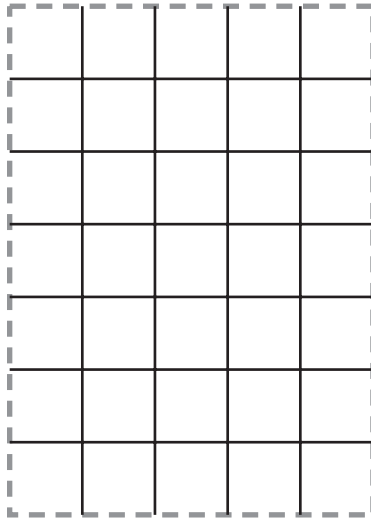
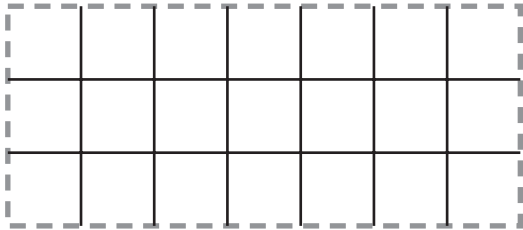


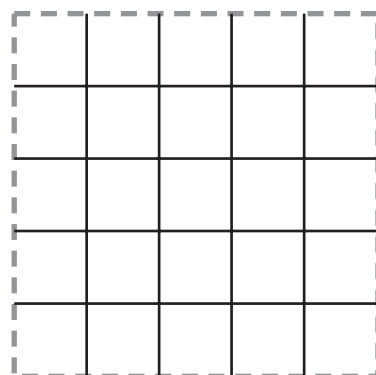
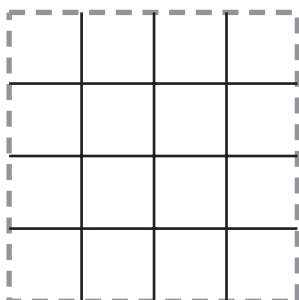
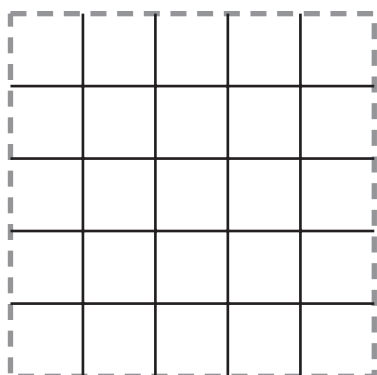
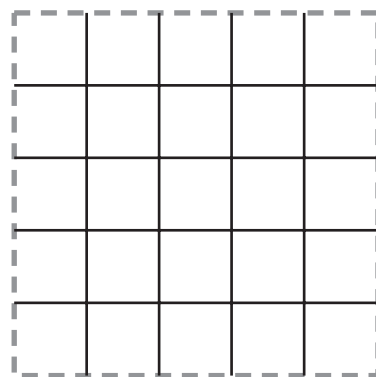
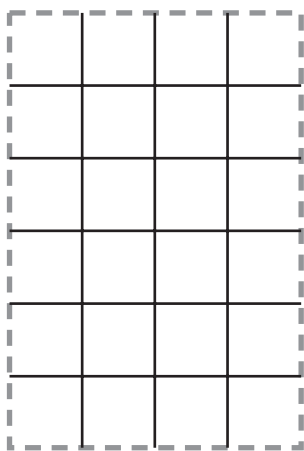
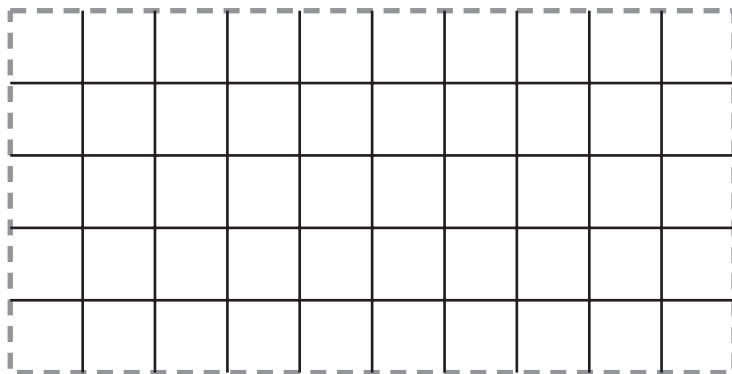
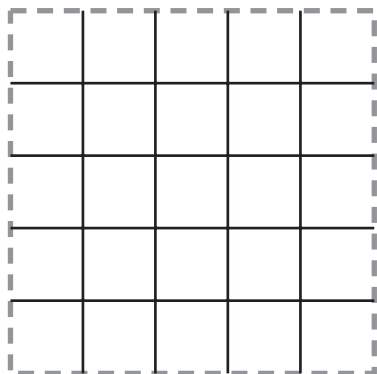
100-Square Arrays

Cut out the arrays. Then use the pieces to make a **10-by-10** array in as many ways as you can.



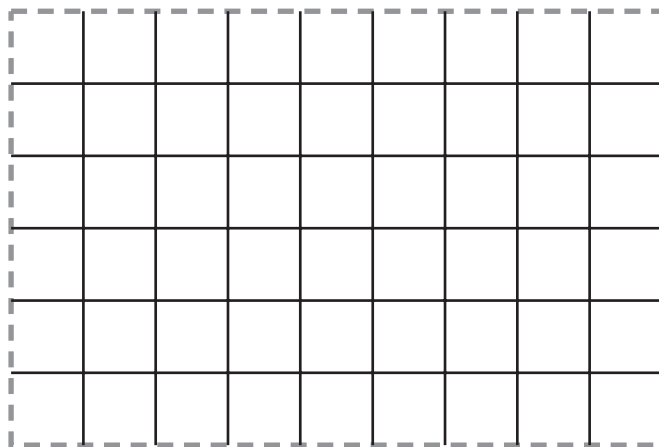
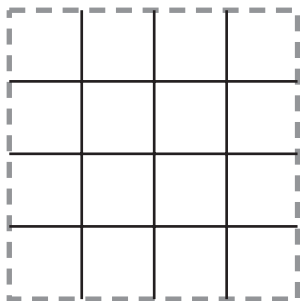
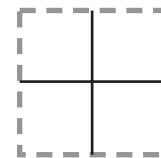
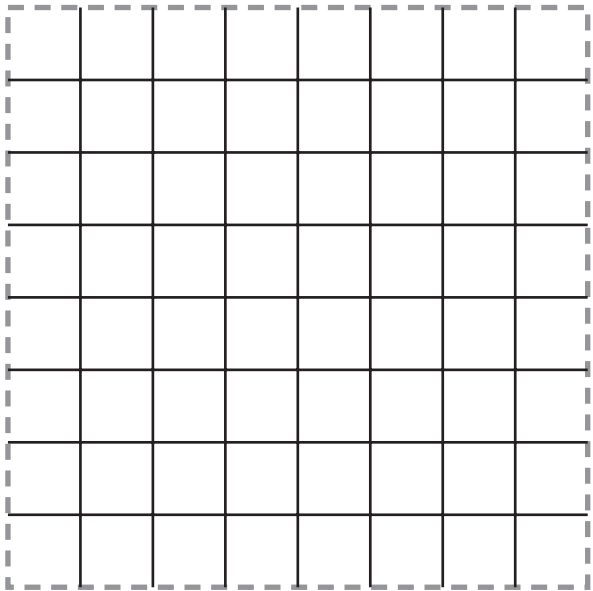
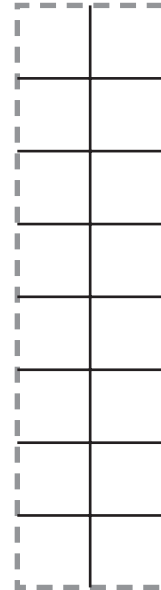
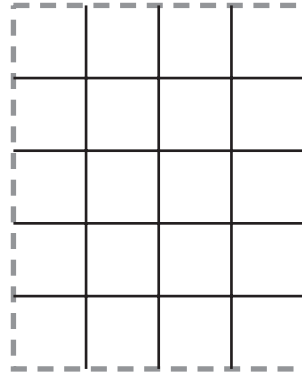
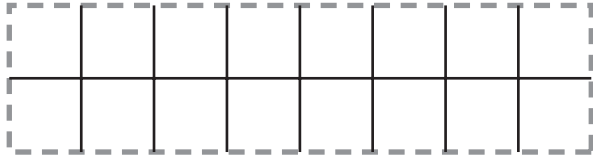
100-Square Arrays

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100-Square Arrays

Cut out the arrays. Then use the pieces to make a 10-by-10 array in as many ways as you can.



Tic-Tac-Toe Multiplication

8	8	8	9	12
4	5	6	6	7
2	2	3	3	4

Player B

24	54	18
72	12	48
36	20	56

Player A

2	2	3	3	4
4	5	6	6	7
8	8	9	9	12

Tic-Tac-Toe Multiplication

7	8	9	12
5	6	6	7
2	3	4	4

Player B

35	12	63
32	24	25
81	42	36

Player A

2	3	4	4
5	6	6	7
7	8	9	12

Tic-Tac-Toe Multiplication

8	8	8	12
4	5	6	7
2	3	4	4

Player B

64	12	21
16	36	40
45	28	24

Player A

2	3	4	4
4	5	6	7
8	8	9	12

Tic-Tac-Toe Multiplication

8	8	9	9	12
4	6	6	7	8
2	2	3	3	4

Player B

24	72	16
56	18	48
12	27	36

Player A

2	2	3	3	4
4	6	6	7	8
8	8	9	9	12

Making a 12-by-13 Array

The activity area contains four grid patterns, each with a dashed border for cutting. The top-left grid is 6 rows by 6 columns, with a scissors icon at the top right corner. The top-right grid is 12 rows by 6 columns. The bottom-left grid is 2 rows by 6 columns. The bottom-right grid is 6 rows by 6 columns.

Combining Arrays

A	B		C		D	
E	F		G		H	
I	J		K		L	
M	N		O		P	

1 $A + B = \underline{\quad}$

7 $M + N = \underline{\quad}$

2 $A + E = \underline{\quad}$

8 $K + O = \underline{\quad}$

3 $C + D = \underline{\quad}$

9 $D + H + L + P = \underline{\quad}$

4 $F + J = \underline{\quad}$

10 $I + J + K + L = \underline{\quad}$

5 $G + H = \underline{\quad}$

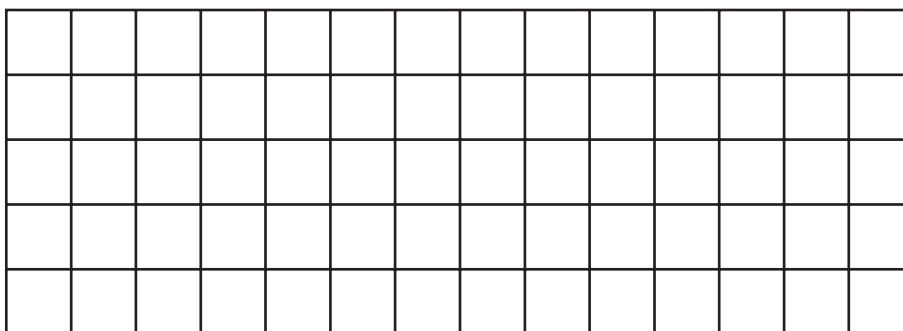
11 $J + K + N + O = \underline{\quad}$

6 $H + L = \underline{\quad}$

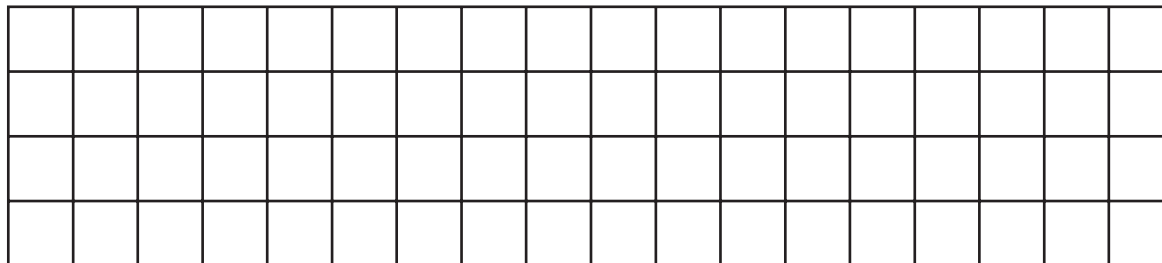
12 $K + L + O + P = \underline{\quad}$

Separating Arrays

Draw a line to separate the array into 2 smaller arrays. Use the smaller arrays to figure out the number of small squares in the entire array.

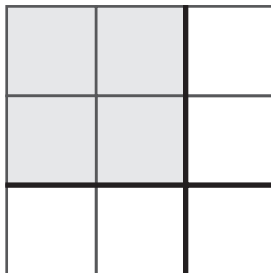
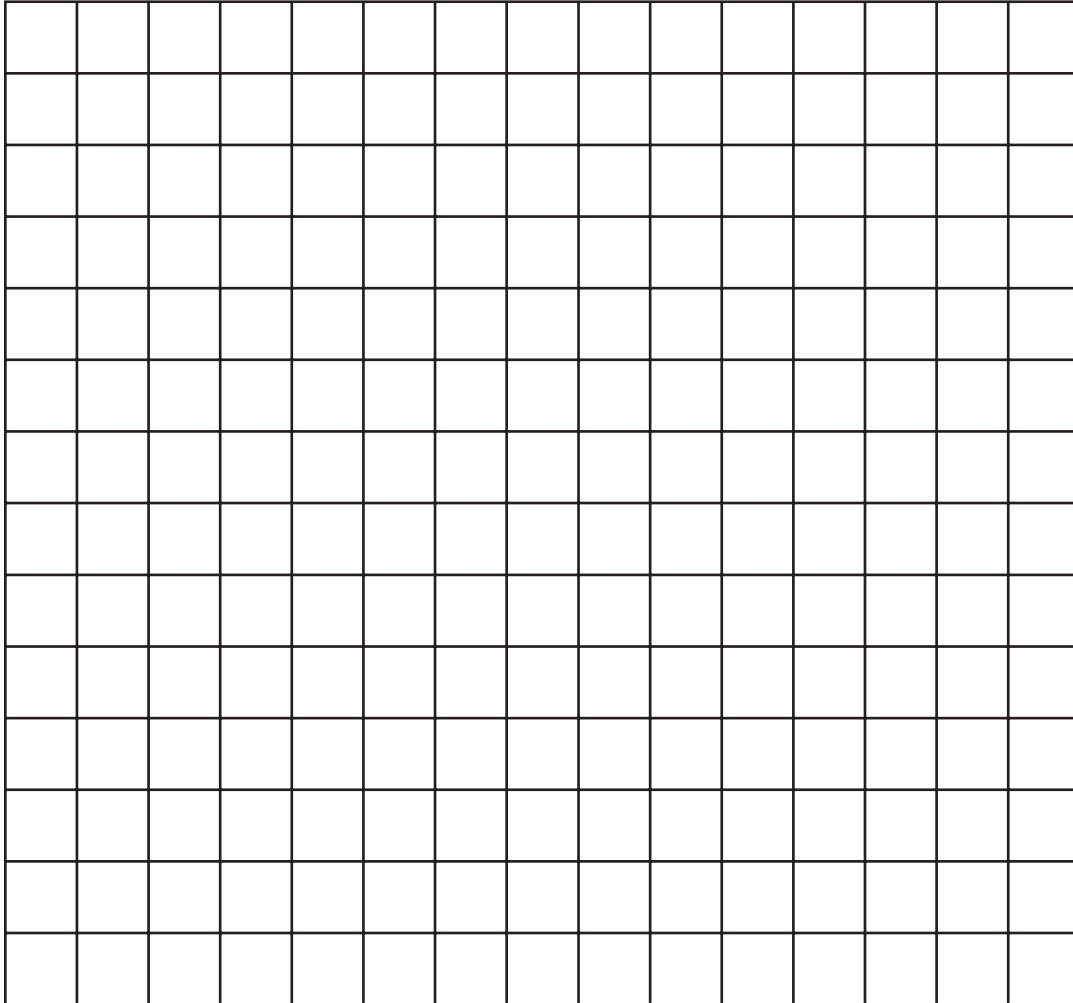
A

The array has _____ squares.

B

The array has _____ squares.

Large Array



Caught in the Middle

This game is for three players.

Setup:

Make 4 sets of index cards numbered 1 through 12. Shuffle the cards, and place them face down.

One Round of Play:

Each player takes two cards from the deck and turns them face up. Taking turns, each player says the product of their two numbers aloud. Make sure to notice who has the product with the value between the other two products (the middle value, not the highest or lowest).

Each player takes a turn to name a different pair of numbers (not including 1) that also make their product. For example, a player who got 4 and 8 could name 2 and 16 (even though 16 is not a card).

Players who can make their product in a different way take one of their own cards (it does not matter which one) and place it face down in their “**won pile.**” The player who had the product in the middle takes all the remaining face up cards for his or her “**won pile.**” (If there is no middle value because two players have the same product, the player with the different product can take the remaining cards.)

Ending the Game and Scoring:

Play continues until not enough cards remain for each player to take 2 cards. The player with the most cards in their “**won pile**” wins.