

this is a multiplication table of 12 by 12. you multiply a bold number from the horizontal axis by a bold number from the vertical axis and find the product in the corresponding square.

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

THE GOAL OF THIS EXERCISE IS TO WORK ON YOUR MULTIPLICATION SKILLS. MR. KRAMER TIMED HIMSELF TO SEE HOW QUICKLY I COULD FILL IN A MULTIPLICATION GRID OF 12X12. IT TOOK BETWEEN 3 AND 4 MINUTES. MY GOAL FOR YOU IS THAT YOU CAN FILL IT IN LESS THAN 10 MINUTES. THIS SPEED MAY TAKE SEVERAL MONTHS.

Table Facts

1 x 1 = 1		
1 x 2 = 2	2 x 2 = 4	
1 x 3 = 3	2 x 3 = 6	3 x 3 = 9
1 x 4 = 4	2 x 4 = 8	3 x 4 = 12
1 x 5 = 5	2 x 5 = 10	3 x 5 = 15
1 x 6 = 6	2 x 6 = 12	3 x 6 = 18
1 x 7 = 7	2 x 7 = 14	3 x 7 = 21
1 x 8 = 8	2 x 8 = 16	3 x 8 = 24
1 x 9 = 9	2 x 9 = 18	3 x 9 = 27
1 x 10 = 10	2 x 10 = 20	3 x 10 = 30
1 x 11 = 11	2 x 11 = 22	3 x 11 = 33
1 x 12 = 12	2 x 12 = 24	3 x 12 = 36

4 x 4 = 16		
4 x 5 = 20	5 x 5 = 25	
4 x 6 = 24	5 x 6 = 30	6 x 6 = 36
4 x 7 = 28	5 x 7 = 35	6 x 7 = 42
4 x 8 = 32	5 x 8 = 40	6 x 8 = 48
4 x 9 = 36	5 x 9 = 45	6 x 9 = 54
4 x 10 = 40	5 x 10 = 50	6 x 10 = 60
4 x 11 = 44	5 x 11 = 55	6 x 11 = 66
4 x 12 = 48	5 x 12 = 60	6 x 12 = 72

7 x 7 = 49		
7 x 8 = 56	8 x 8 = 64	
7 x 9 = 63	8 x 9 = 72	9 x 9 = 81
7 x 10 = 70	8 x 10 = 80	9 x 10 = 90
7 x 11 = 77	8 x 11 = 88	9 x 11 = 99
7 x 12 = 84	8 x 12 = 96	9 x 12 = 108

10 x 10 = 100		
10 x 11 = 110	11 x 11 = 121	
10 x 12 = 120	11 x 12 = 132	12 x 12 = 144

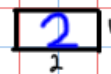
THESE ARE MULTIPLICATION TABLE FACTS FOR A 12 X 12 GRID

THINK OF MULTIPLICATION AS CREATING RECTANGLES WITH DIMENSIONS OF EACH OF THE VALUES IN THE MULTIPLICATION PROBLEM

CREATE RECTANGLES THAT HAVE A SQUARE AREA EQUAL TO THE PRODUCT OF THE MULTIPLICATION PROBLEM.



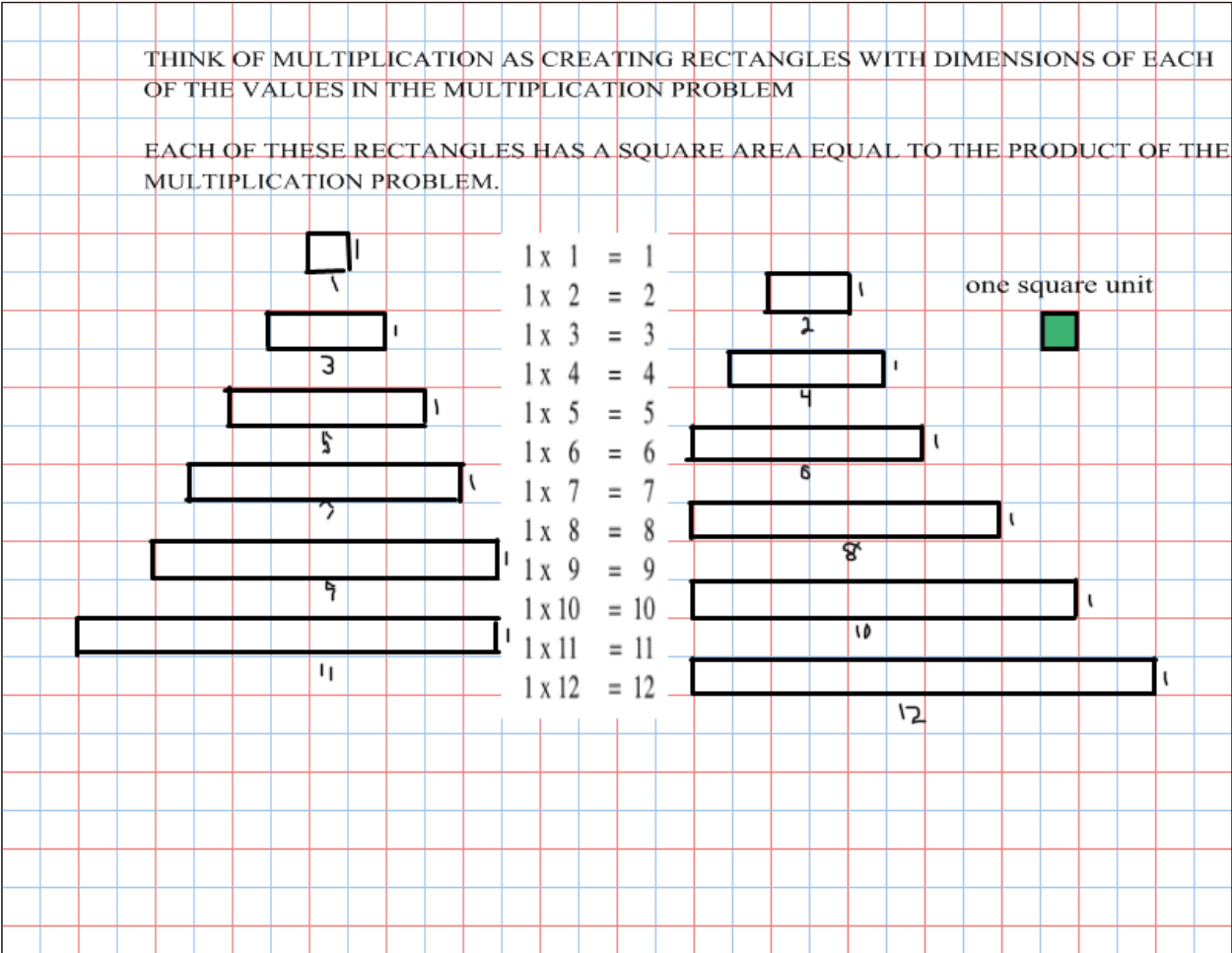
1 x 1	=	1
1 x 2	=	2
1 x 3	=	3
1 x 4	=	4
1 x 5	=	5
1 x 6	=	6
1 x 7	=	7
1 x 8	=	8
1 x 9	=	9
1 x 10	=	10
1 x 11	=	11
1 x 12	=	12

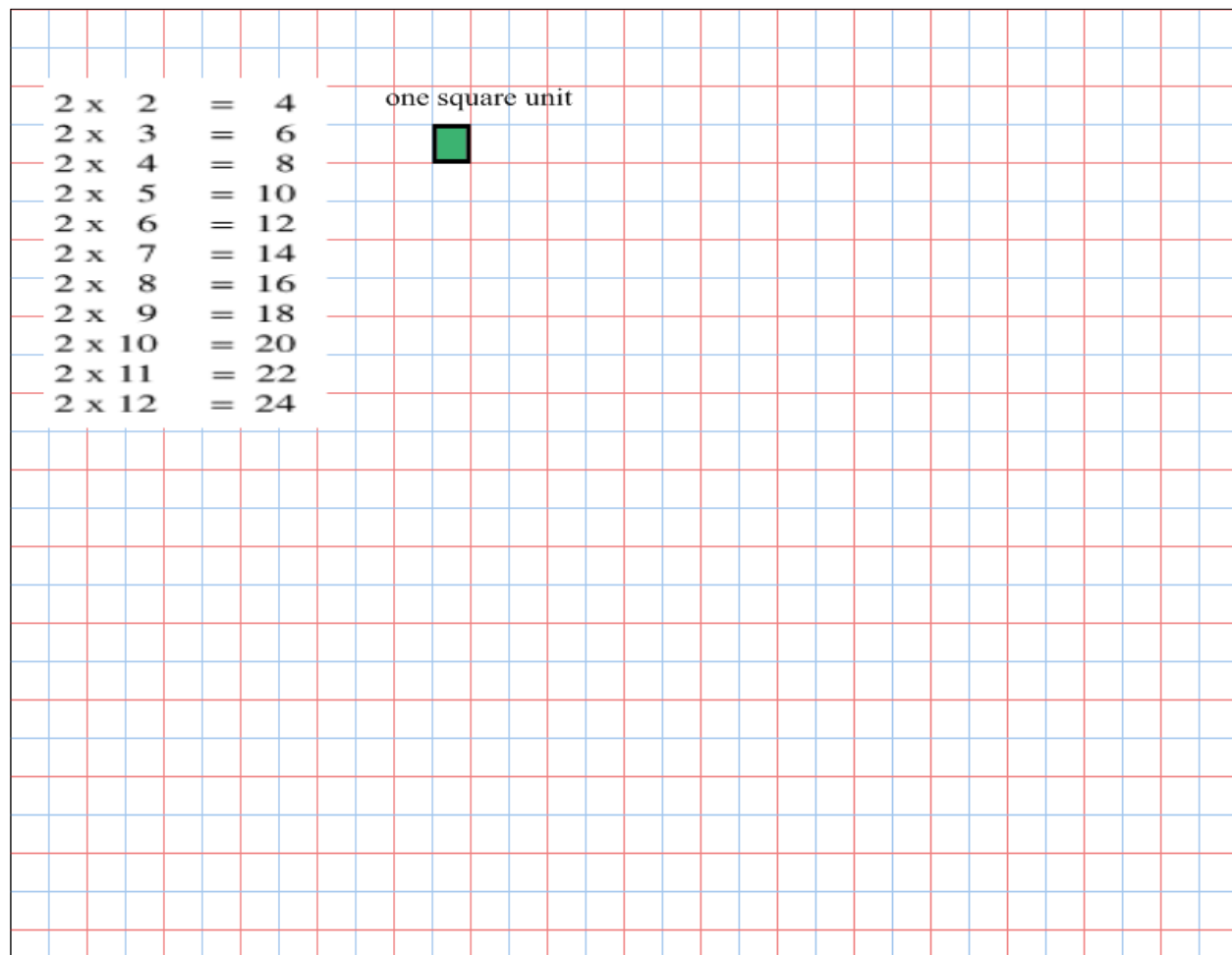


one square unit



ANSWERS ARE ON NEXT PAGE





2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
2 x 11 = 22
2 x 12 = 24

2 x 2
4

2 x 3
6

2 x 4
8

2 x 5
10

2 x 6
12

2 x 7
14

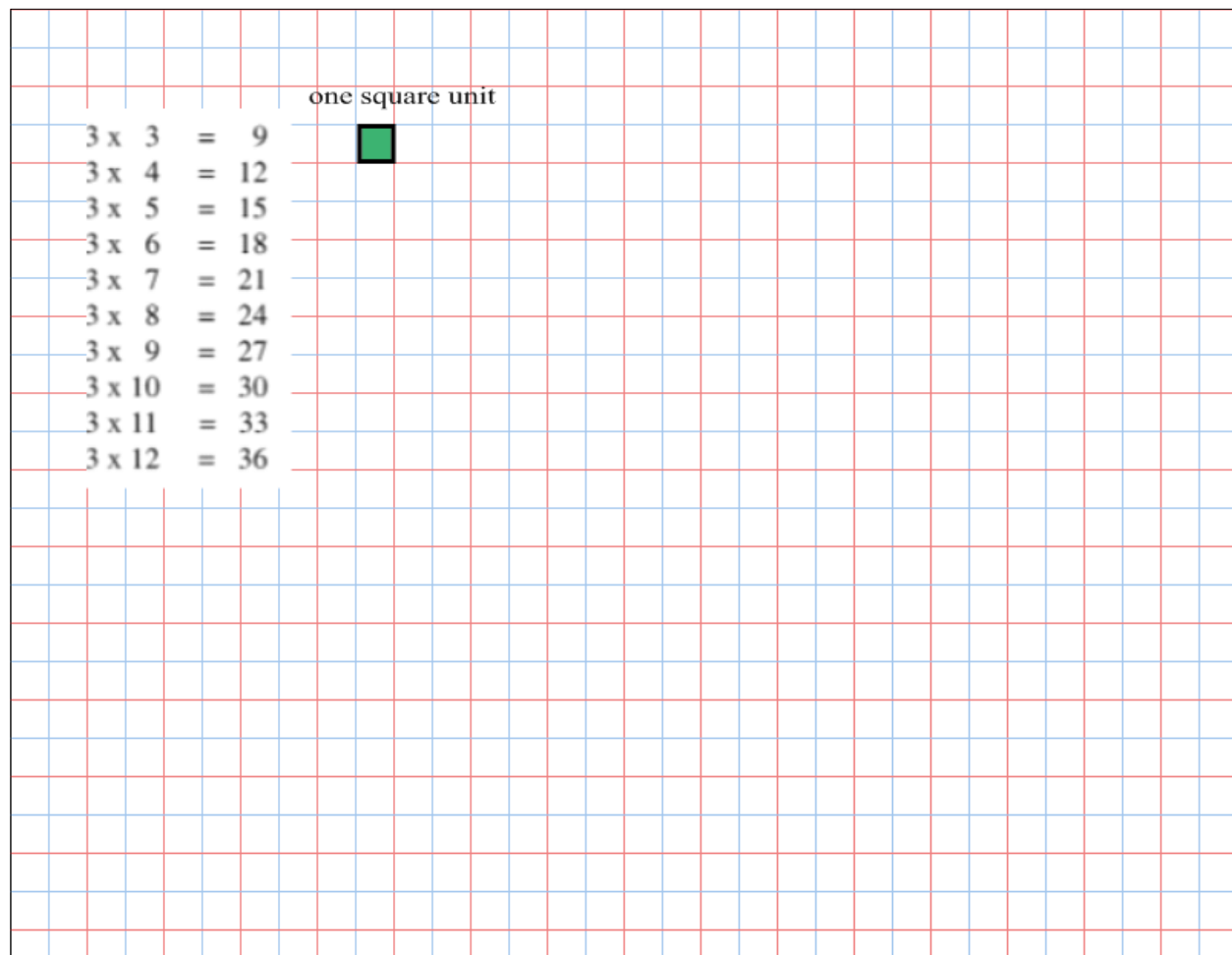
2 x 8
16

2 x 9
18

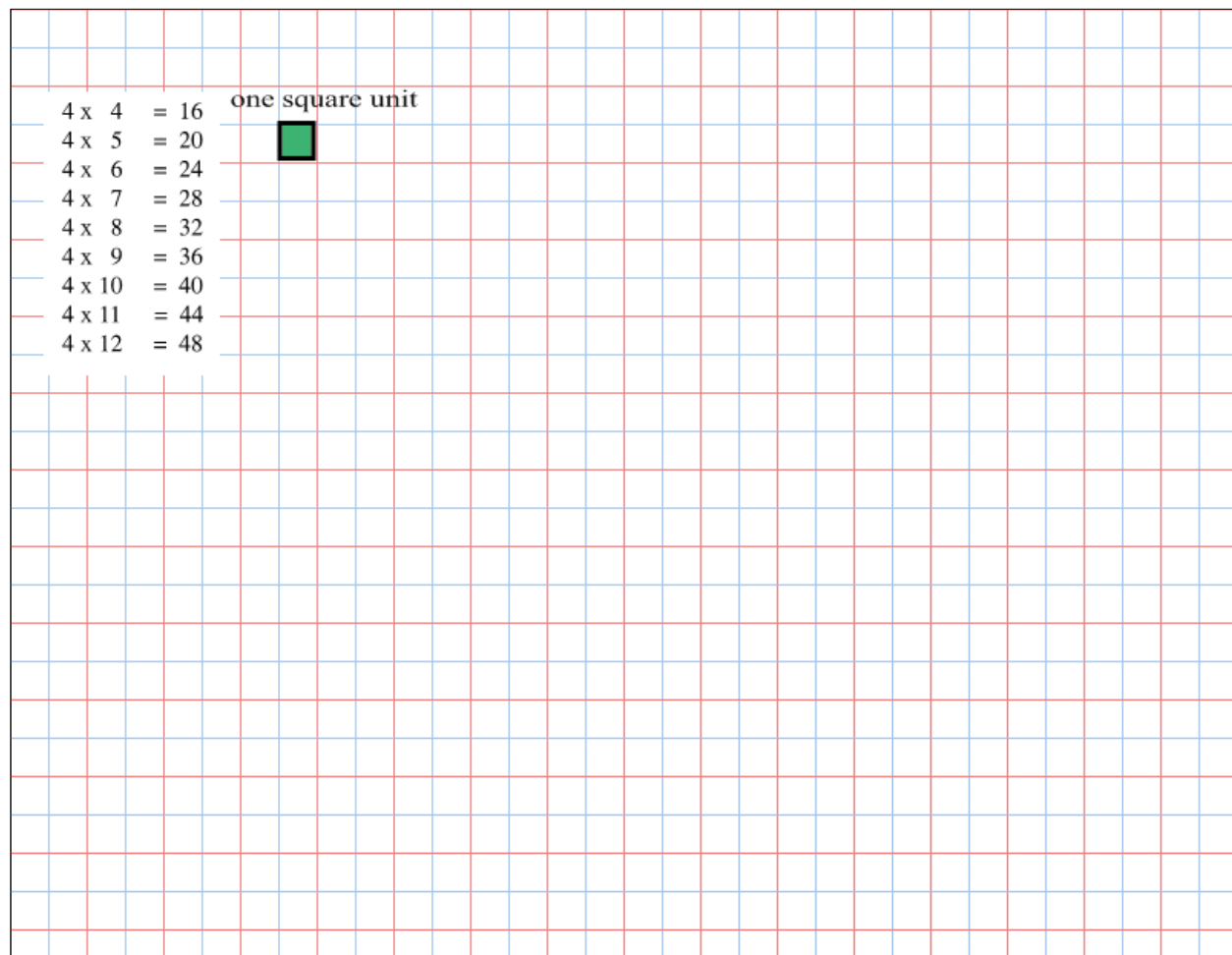
2 x 10
20

2 x 11
22

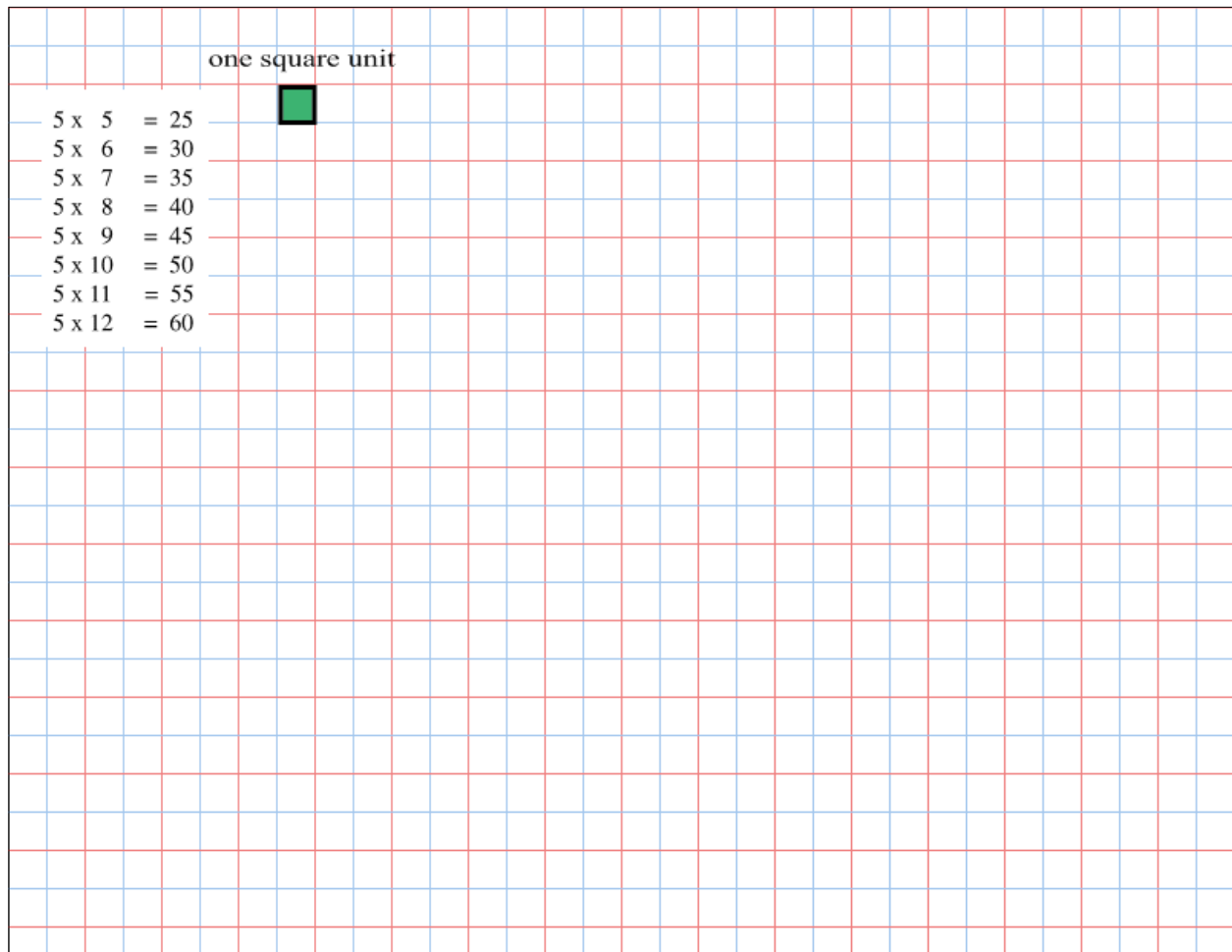
2 x 12
24

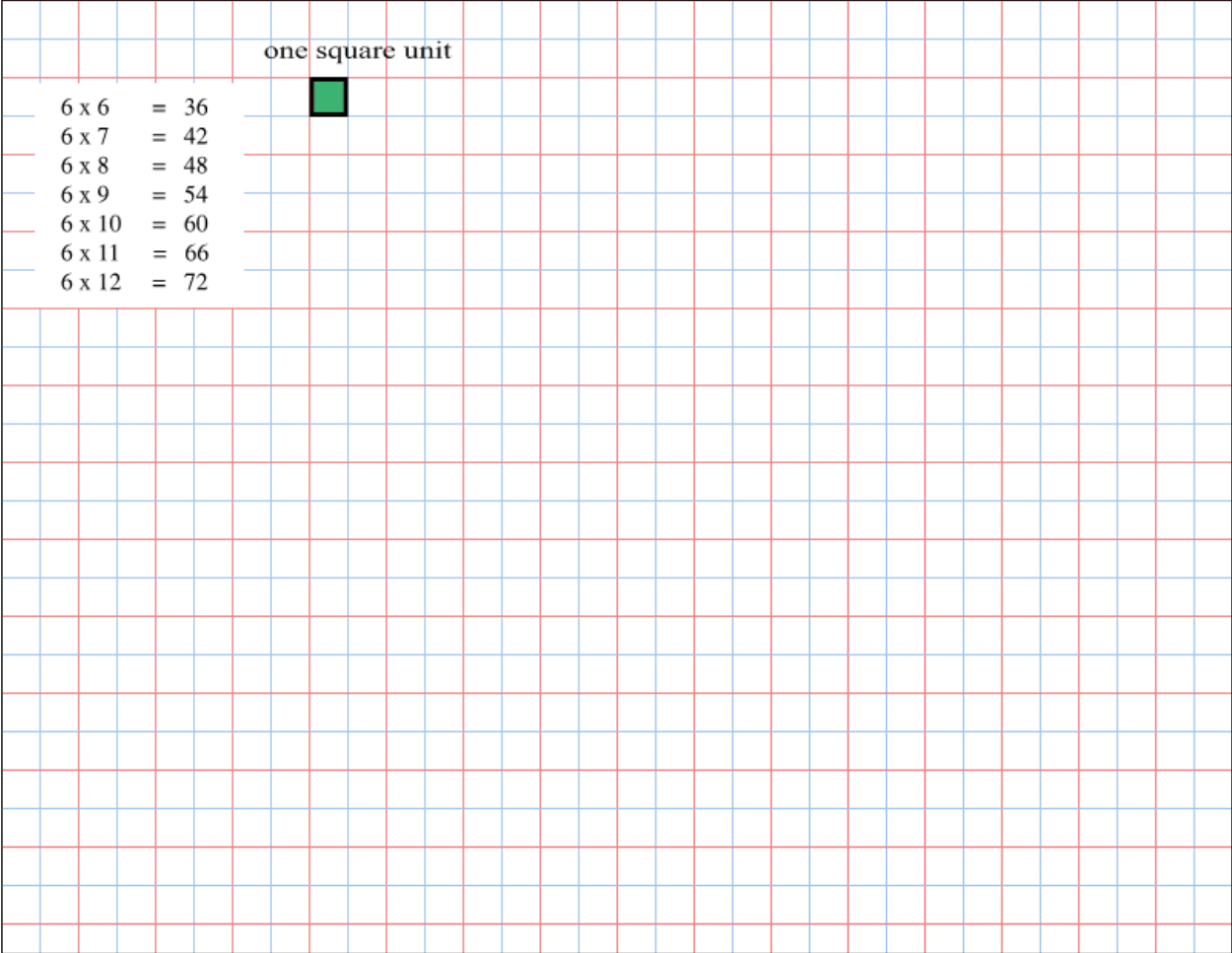


$3 \times 3 = 9$	3×3	3×4	3×5
$3 \times 4 = 12$	9	12	15
$3 \times 5 = 15$			
$3 \times 6 = 18$			
$3 \times 7 = 21$			
$3 \times 8 = 24$	3×6	3×7	
$3 \times 9 = 27$	18	21	
$3 \times 10 = 30$			
$3 \times 11 = 33$			
$3 \times 12 = 36$			
	3×8	3×9	3×10
	24	27	30
	3×11	3×12	
	33	36	



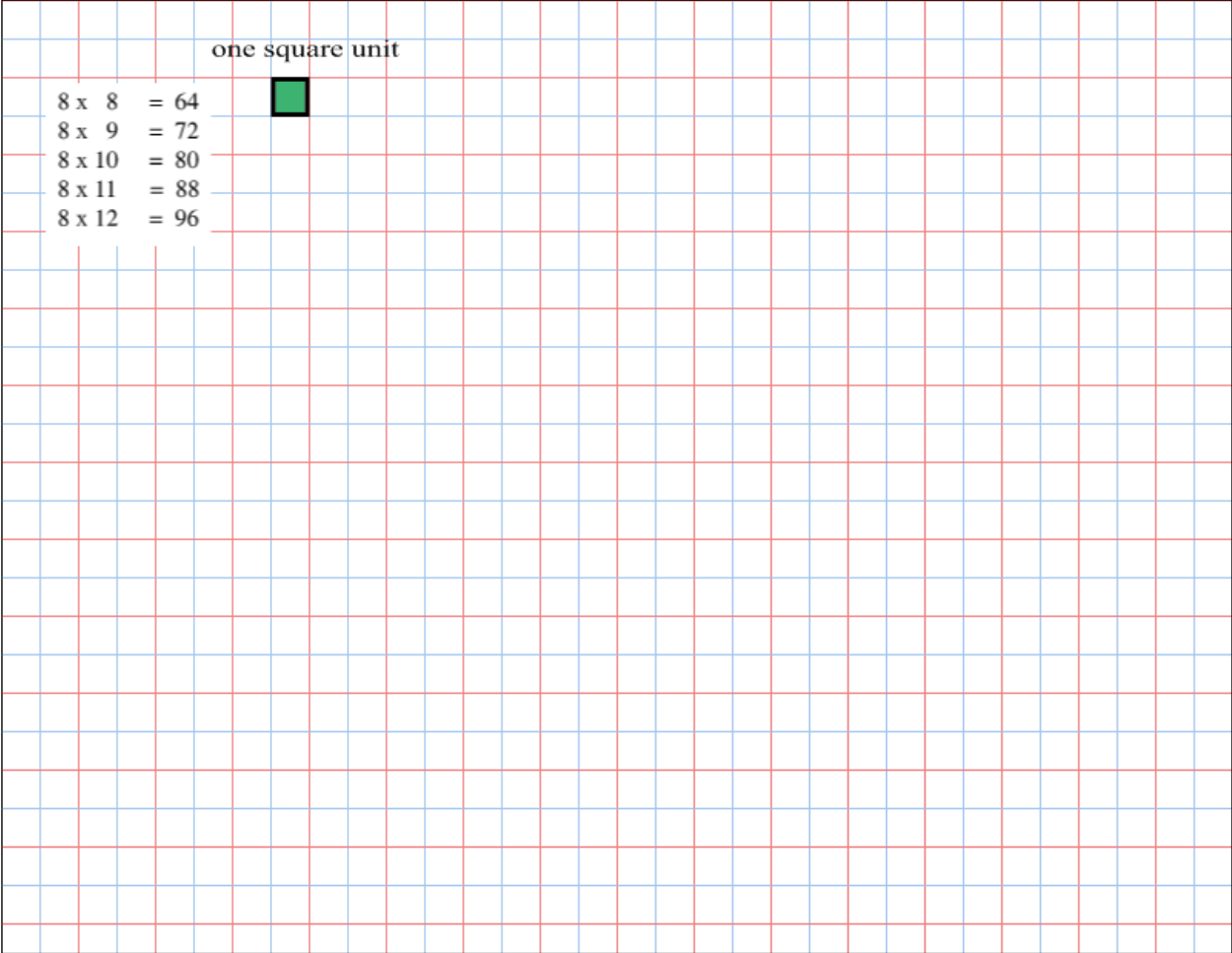
	4×4	4×5	4×6
$4 \times 4 = 16$	16	20	24
$4 \times 5 = 20$			
$4 \times 6 = 24$			
$4 \times 7 = 28$			
$4 \times 8 = 32$	4×7	4×8	
$4 \times 9 = 36$	28	32	
$4 \times 10 = 40$			
$4 \times 11 = 44$	4×9	4×10	
$4 \times 12 = 48$	36	40	
	4×11	4×12	
	44	48	

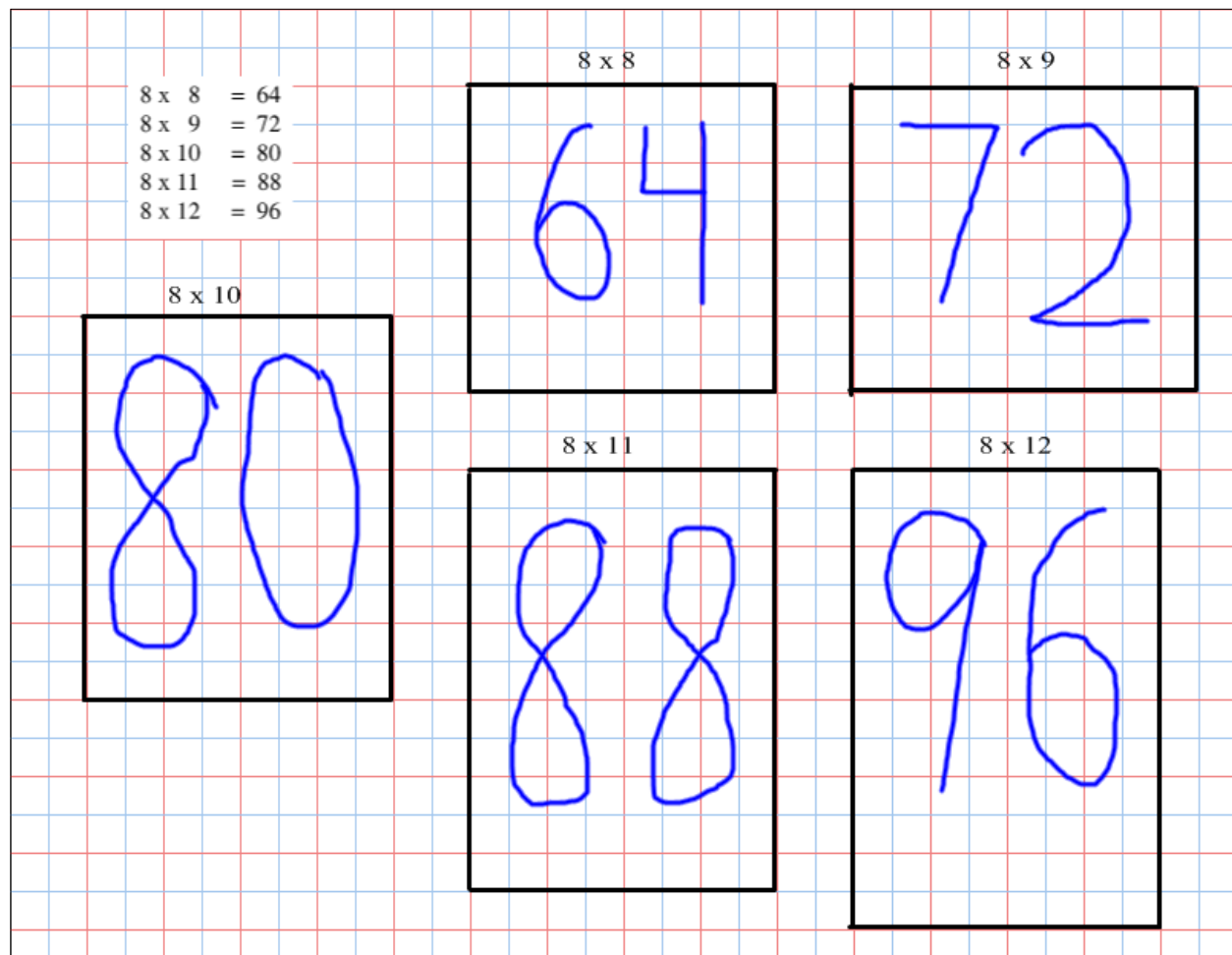


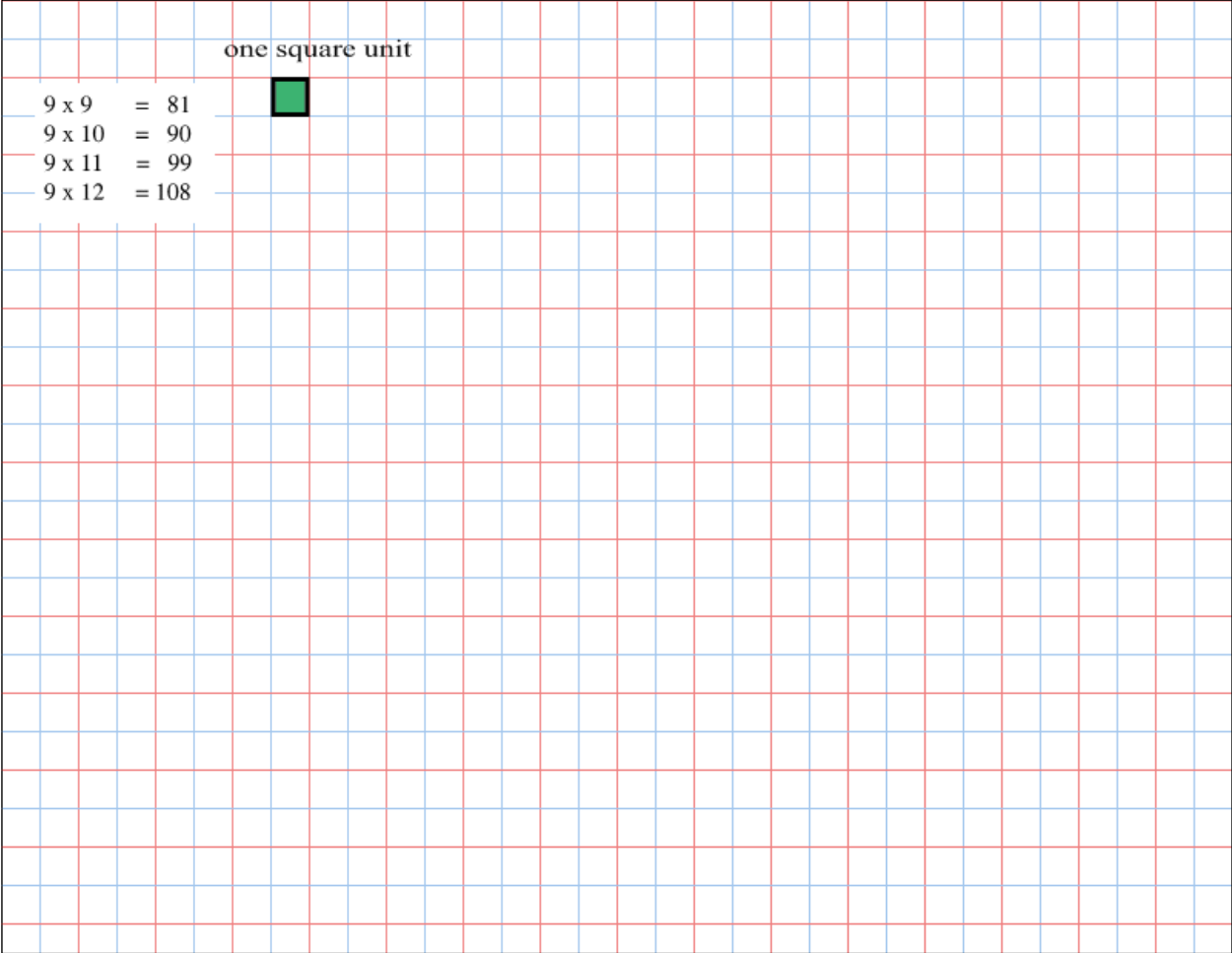


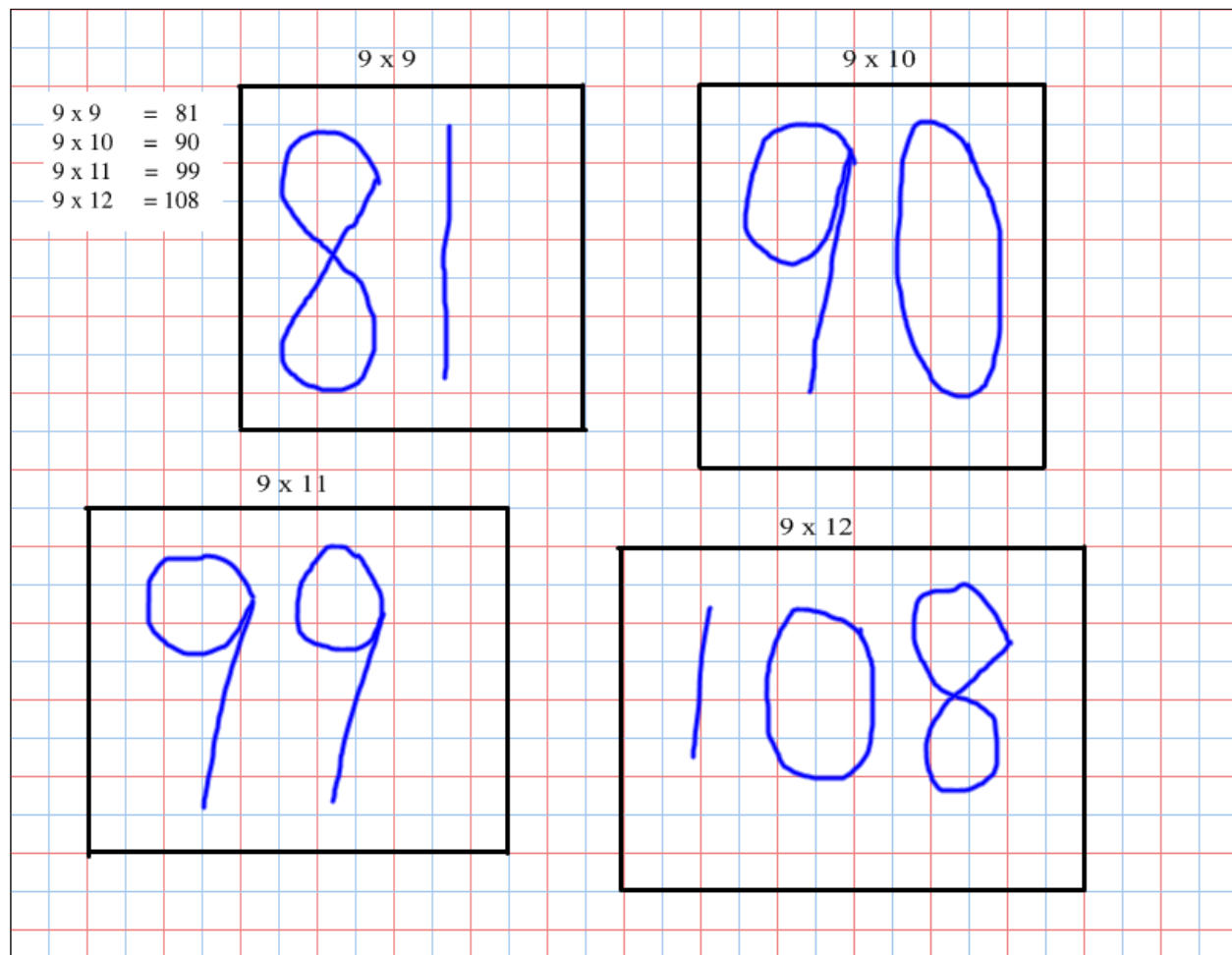
$6 \times 6 = 36$ $6 \times 7 = 42$ $6 \times 8 = 48$ $6 \times 9 = 54$ $6 \times 10 = 60$ $6 \times 11 = 66$ $6 \times 12 = 72$	6×6 36	6×7 42	6×8 48
6×9 54	6×10 60		
6×11 66	6×12 72		

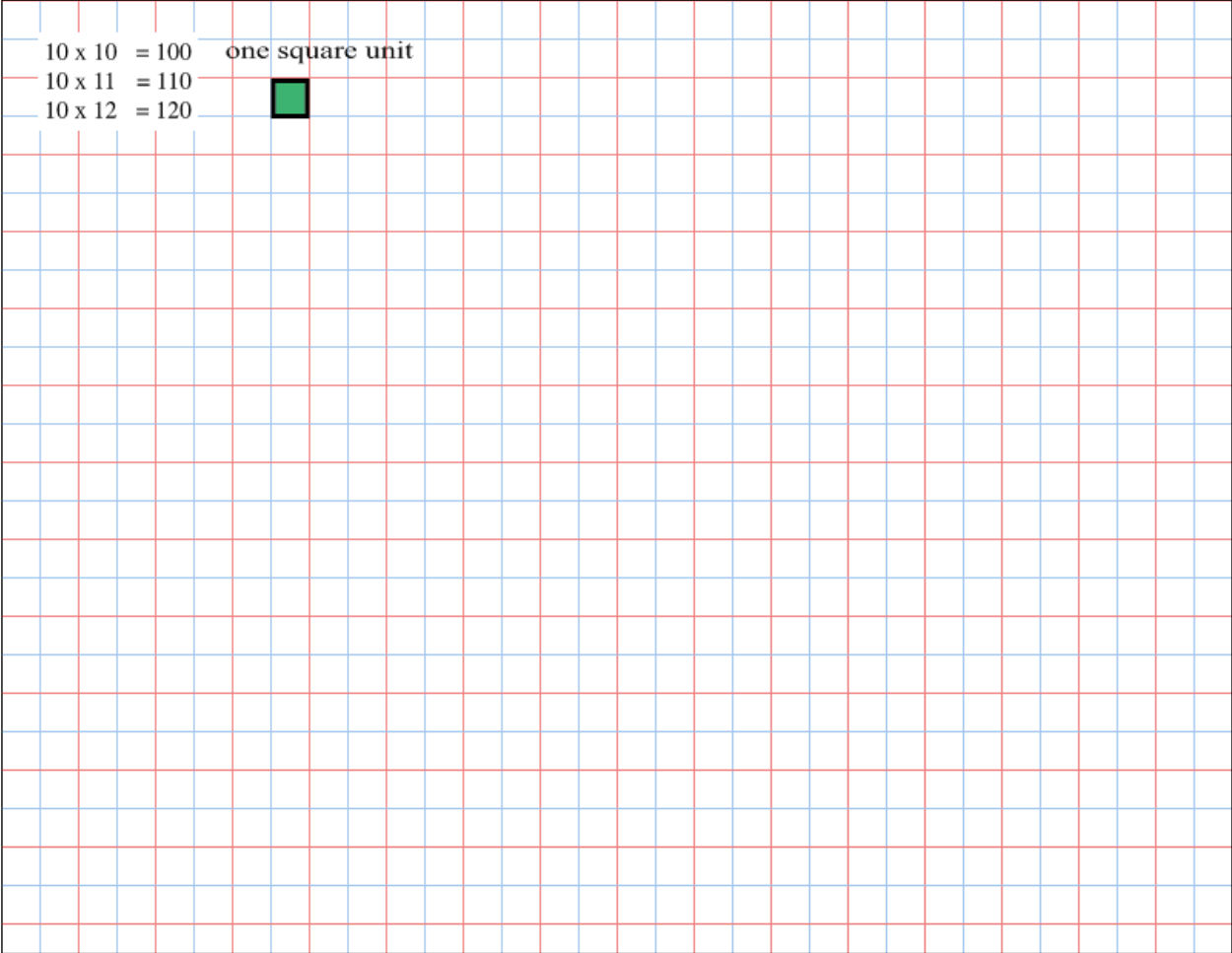
$7 \times 7 = 49$	7×7 49	$7 \times 8 = 56$	7×8 56	$7 \times 9 = 63$	7×9 63
$7 \times 10 = 70$	7×10 70	$7 \times 11 = 77$	7×11 77	$7 \times 12 = 84$	7×12 84











$$10 \times 10 = 100$$

$$10 \times 11 = 110$$

$$10 \times 12 = 120$$

10 x 10

100

10 x 11

110

10 x 12

120

