Art of Multiplication:
Crafty Multiplication Activities

Isabelle Hoag M. A. Ed.

Welcome

Part I. From Artistic Patterns to Multiples

1. Choral skip counting with slideshow (support with number charts)

2. Create circle designs for multiples of four and six

3. Stellar presentations of multiples of four and six

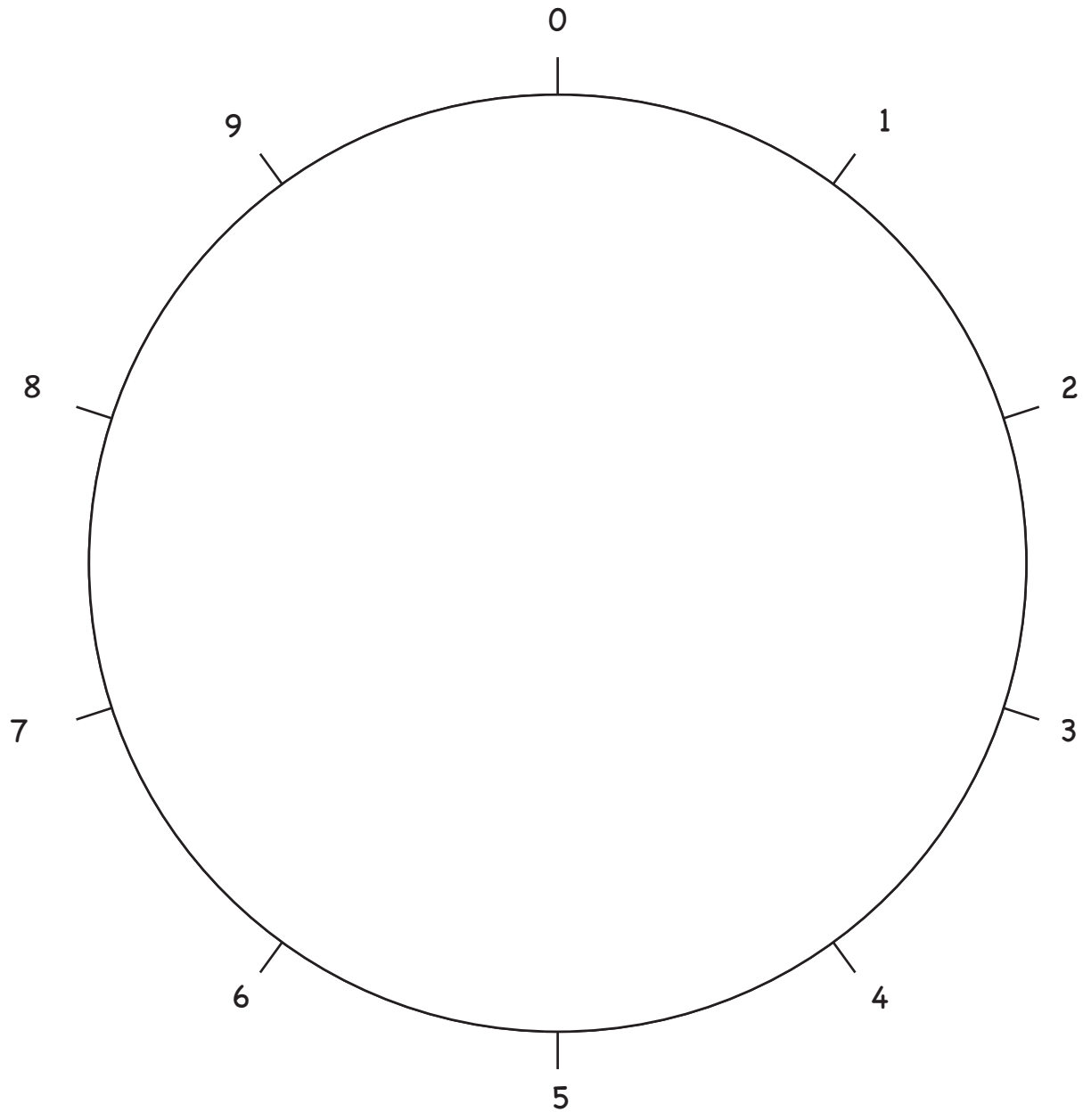
4. Extend; FUN CONNECTIONS chart

Reflection

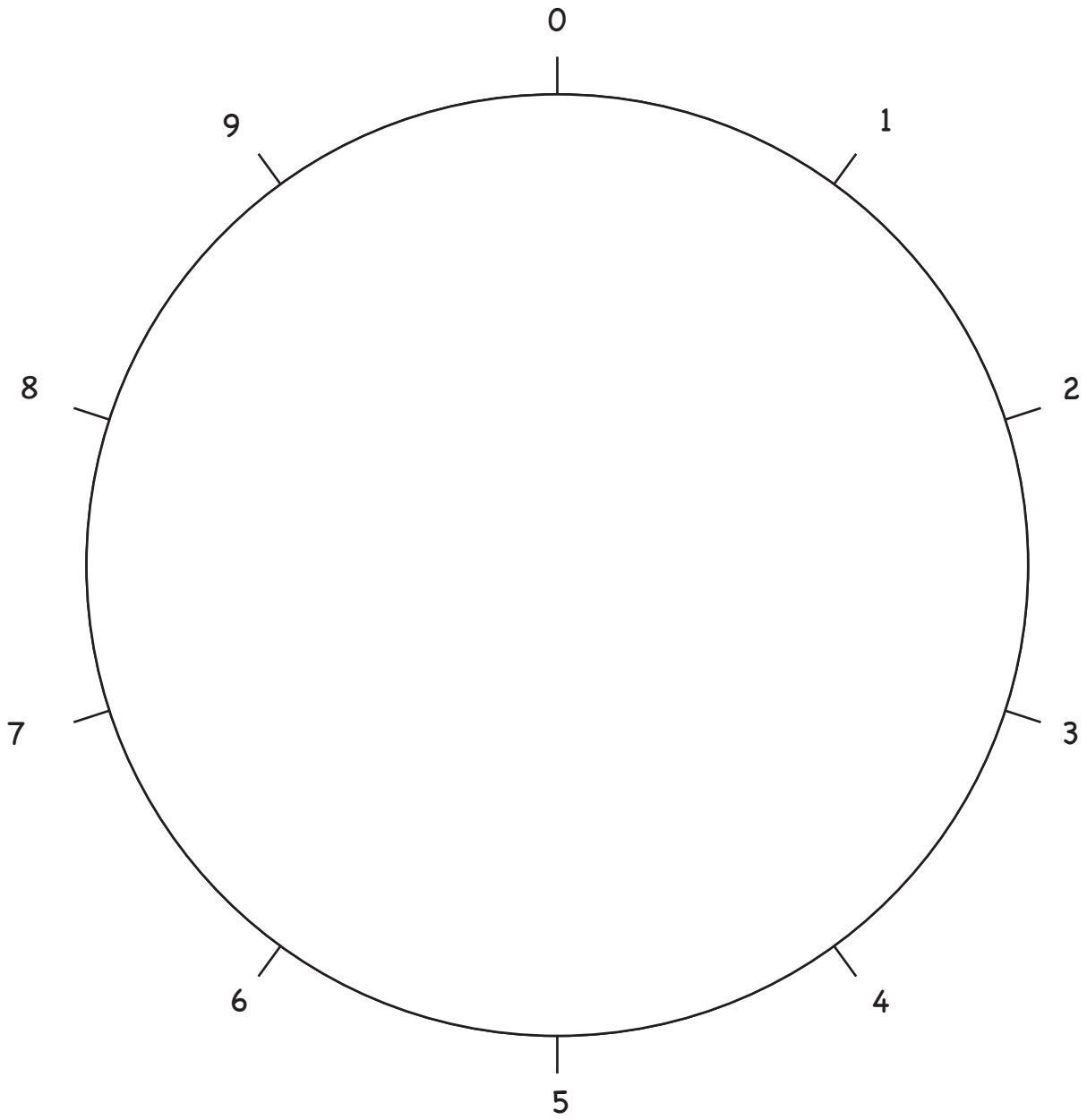
Why do multiples of four and six make similar patterns?
Do you think other number pairs will make similar patterns? How come?
Estimate how many patterns there are in multiples of numbers under 100.

continues on page 8

Designs in Multiples of Four

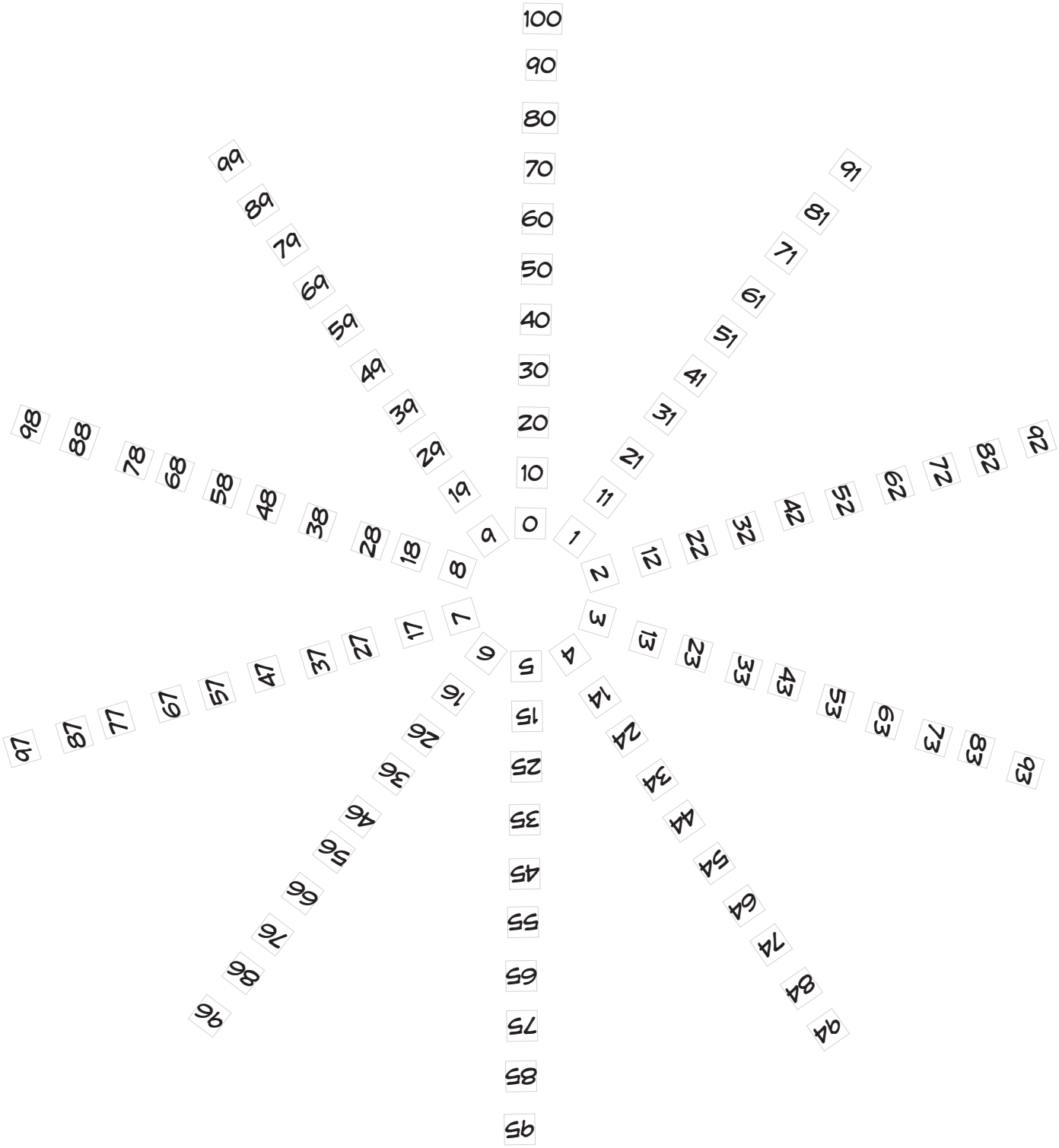


Designs in Multiples of Six



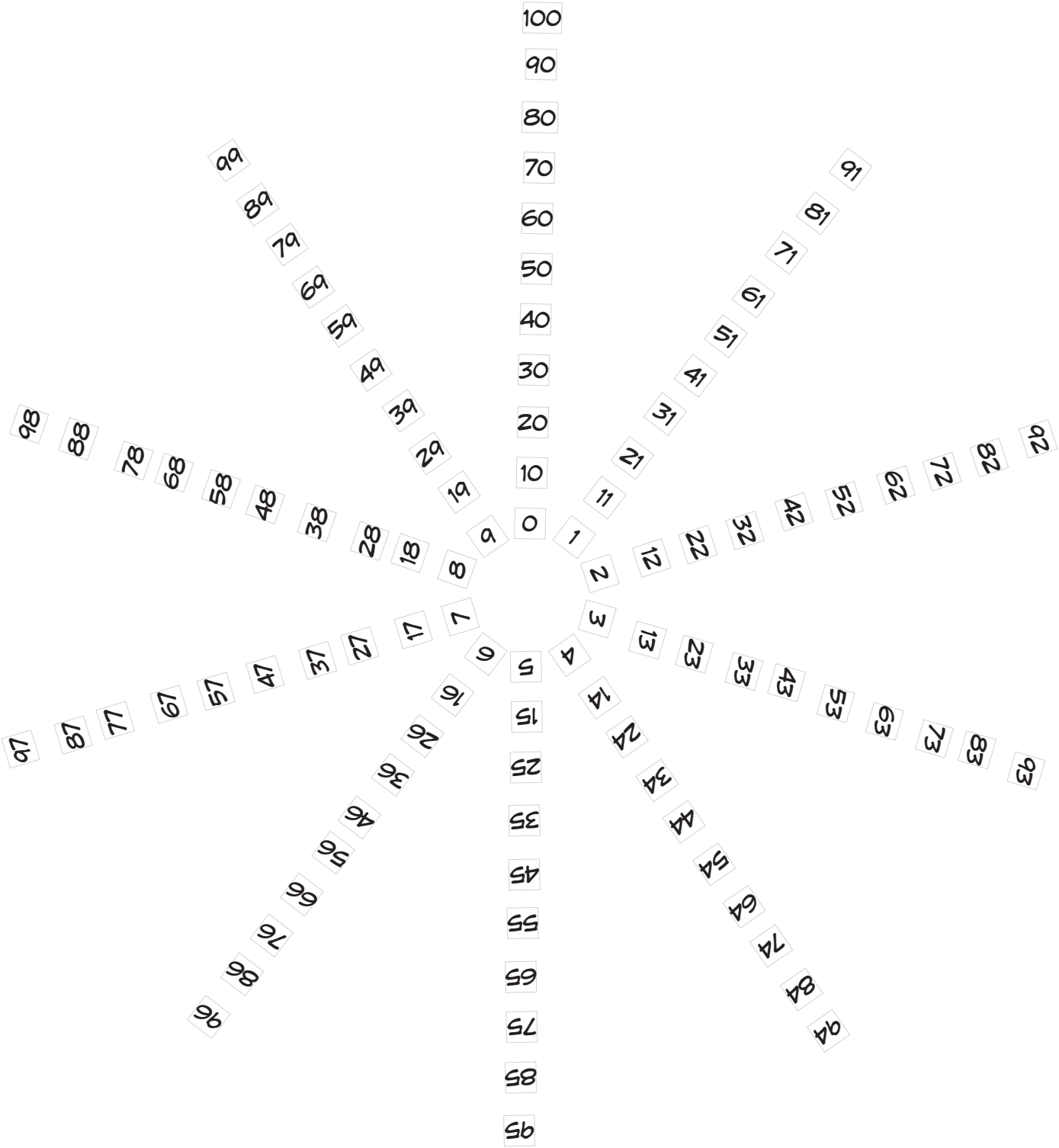
Spiral Hundred Chart

Multiples of Four



Spiral Hundred Chart

Multiples of Six



Fun Connections in Multiples of Four and Six

Add Multiples of Four and Six

X4	Sum	X6

Add Unit's Digit of Multiples

X4	Sum	X6

Resource not yet published.

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Part II. From Area Model to an Array

1. Weave papers to create an area model of 3 x 4

2. Overlap multicolor rows and columns to show 3 x 4

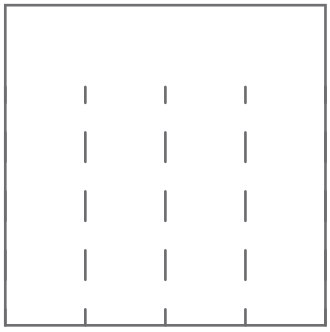
3. Create a colorful array of 3 x 4

Reflections, questions, comments

In the weaving experiment:
if everyone wrote the numbers in the correct places,
would all the answers be the same?

QR code for Choral Counting page;
scroll down for a choral counting HALLOWEEN SLIDESHOW - IF YOU DARE!

Weaving 4 x 3 or 3 x 4
TEACHERS' Instructions

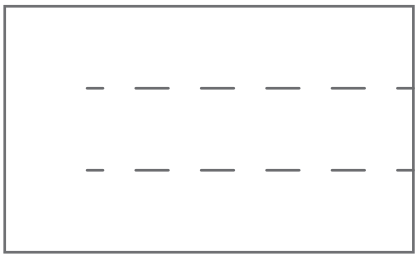


Find the two pieces you need to weave 3 x 4.

Weave the pieces together.

Write the numbers on one side, as described in step 3 of the students' instructions below.

EXPERIMENT!! Make a mental image of the numbers you wrote. Where would each number be if you separated the pieces? Cover the weaving and jot down the numbers in place on the images of the cards to the left.

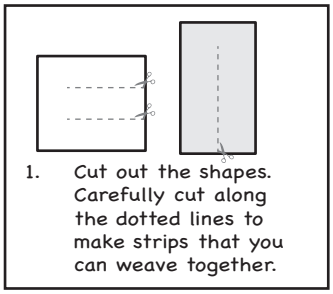


Now write the numbers on the other side.

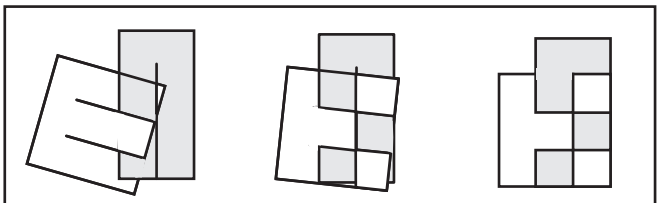
Gently pull the pieces apart to see how you did.

Weave your pieces back together.

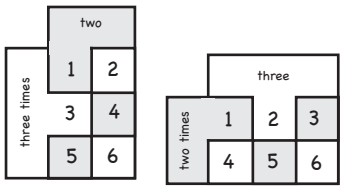
Use the glue dots to keep the edges in place.



1. Cut out the shapes. Carefully cut along the dotted lines to make strips that you can weave together.



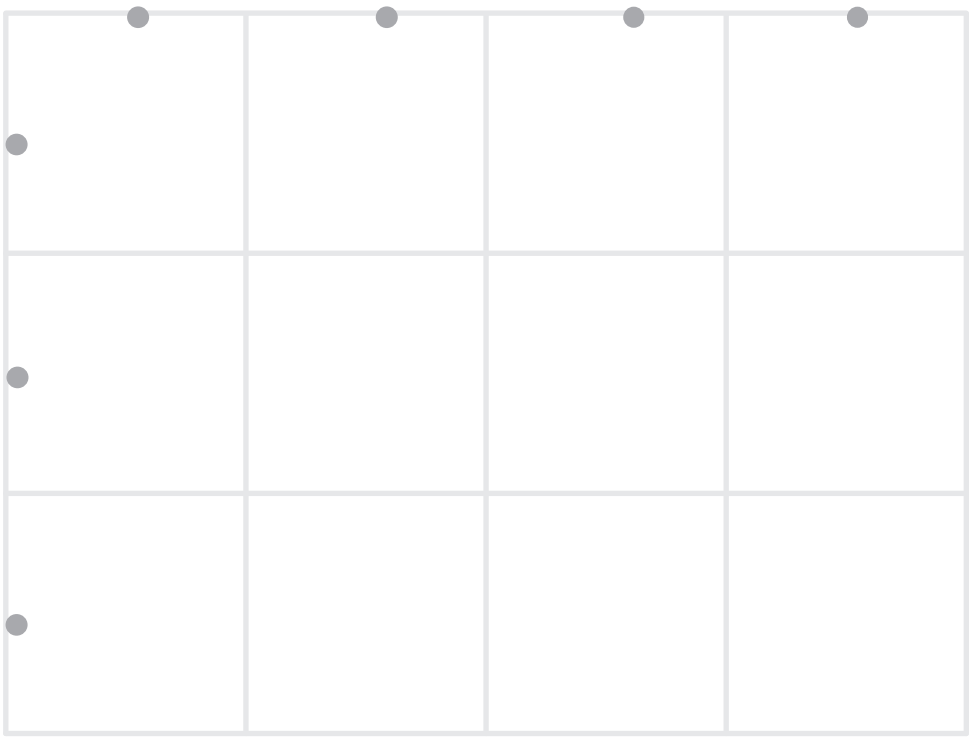
2. Weave the paper together one strip at a time. Use an 'under / over' pattern to create a checkerboard effect. Gently glue the end of each strip to the paper below.



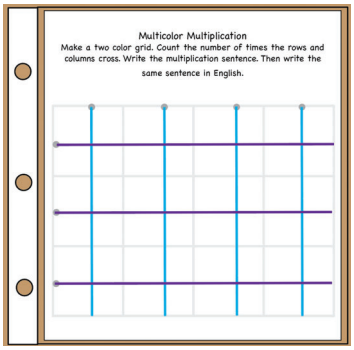
3. Write the labels and numbers on each side. Ensure the number on the bottom right corner is the product of the factors. Use your weaving to help you recall multiplication math facts.

Multicolor Multiplication

Make a two color grid by drawing lines from each dot to the opposite edge. Write the multiplication sentence. Then write the same sentence in English.

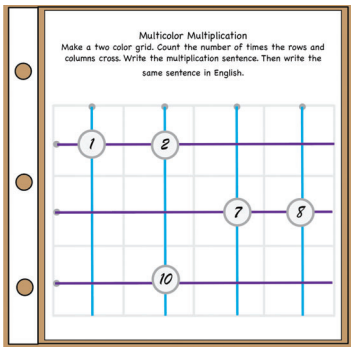


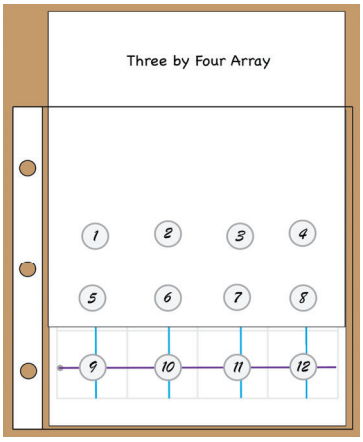
Make a Crafty Sticker Array



When you have completed page 9 put it into the transparent page protector.

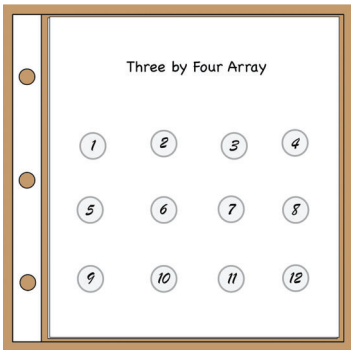
Then, place stickers on the page protector at every intersection of the colorful lines.



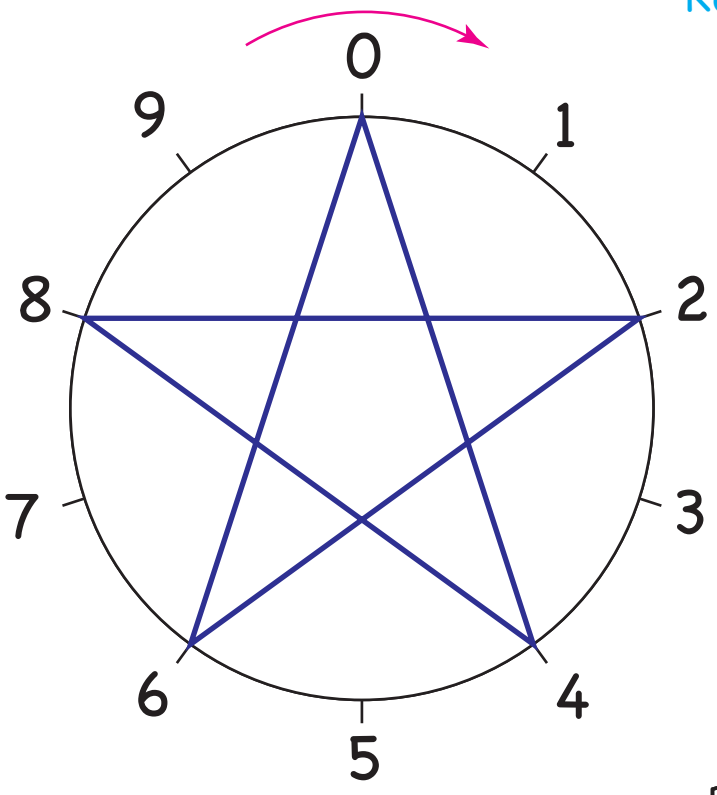


After having placed all the stickers, slide a plain sheet of paper into the page protector so that it is between page 9 and the stickers. Write a descriptive title for the page.

Ta Da!

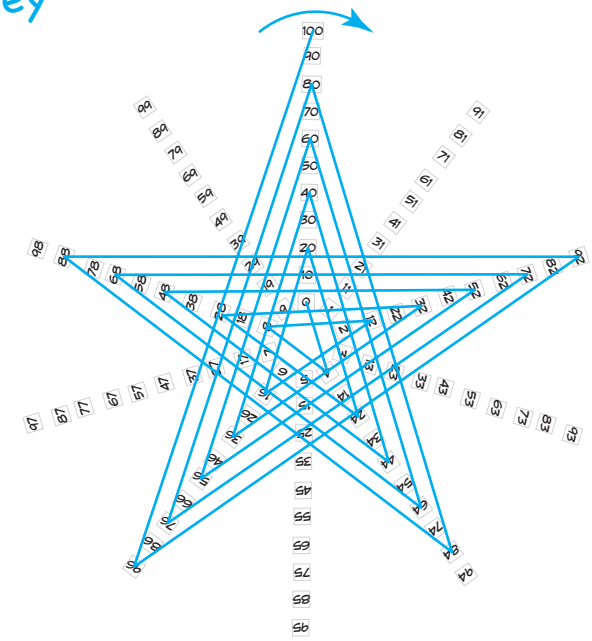


Multiples of Four
Pattern in the Unit's Place

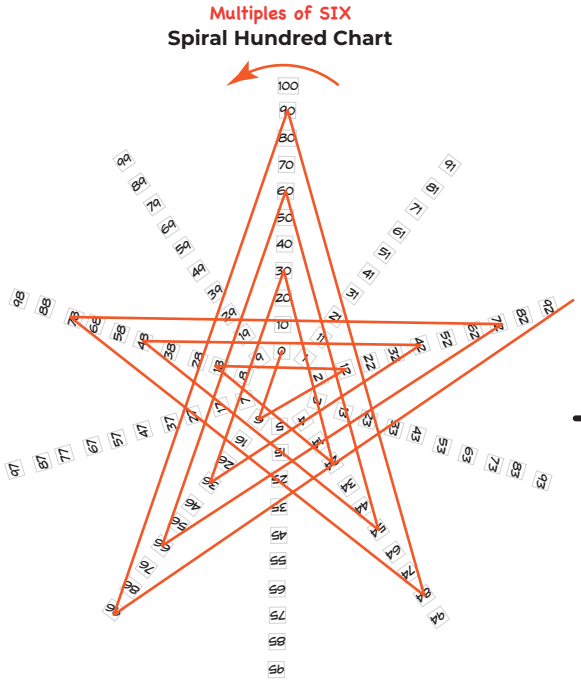


Answer Key

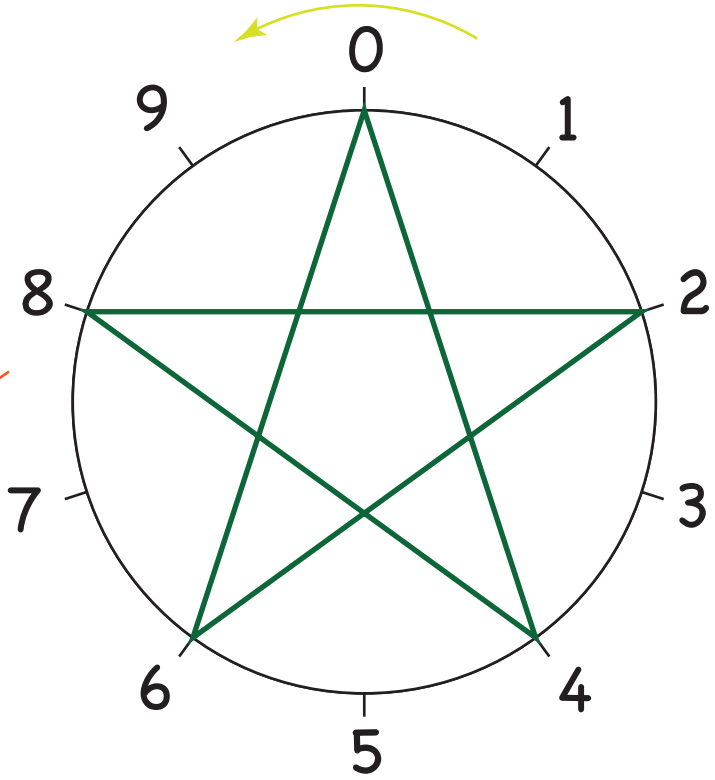
Multiples of FOUR
Spiral Hundred Chart



Multiples of SIX
Spiral Hundred Chart



Multiples of Six
Pattern in the Unit's Place



Fun Connections in Multiples of Four and Six

Answer Key

Add Multiples of Four and Six

X4	Sum	X6
4	10	6
8	20	12
12	30	18
16	40	24
20	50	30
24	60	36
28	70	42
32	80	48
36	90	54
40	100	60
44	110	66
48	120	72

Add Unit's Digit of Multiples

X4	Sum	X6
4	10	6
8	10	2
2	10	8
6	10	4
0	0	0
4	10	6
8	10	2
2	10	8
6	10	4
0	0	0
4	10	6
8	10	2

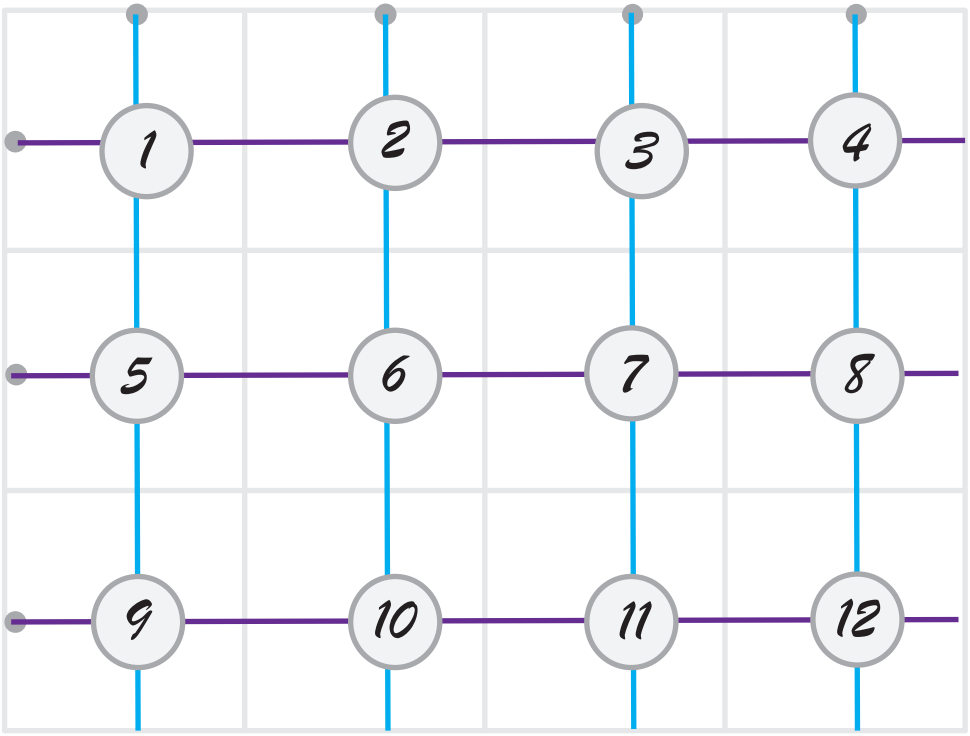
Answer Key

Multicolor Multiplication

Make a two color grid. Count the number of times the rows and columns cross. Write the multiplication sentence. Then write the same sentence in English.

$3 \times 4 = 12$

Three rows of four is twelve.



Use Number Charts to Multiply

Activities in today's Art of Multiplication workshop use multiples of four and six. In order to replicate the full experience, and see multiplication from a student's point of view, please:

Highlight multiples of four and six on the number charts below.

Use the information to complete page 6,
Fun Connections in Multiples of Four and Six.

Plus Four

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40

Plus Six

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60