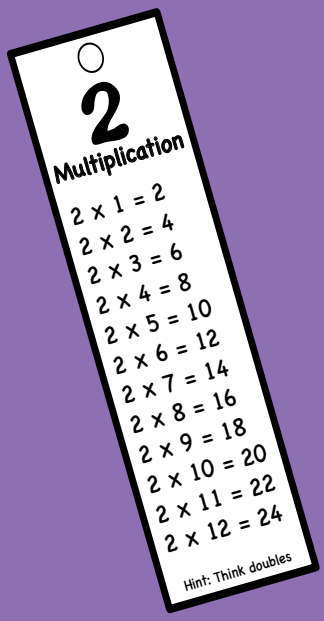
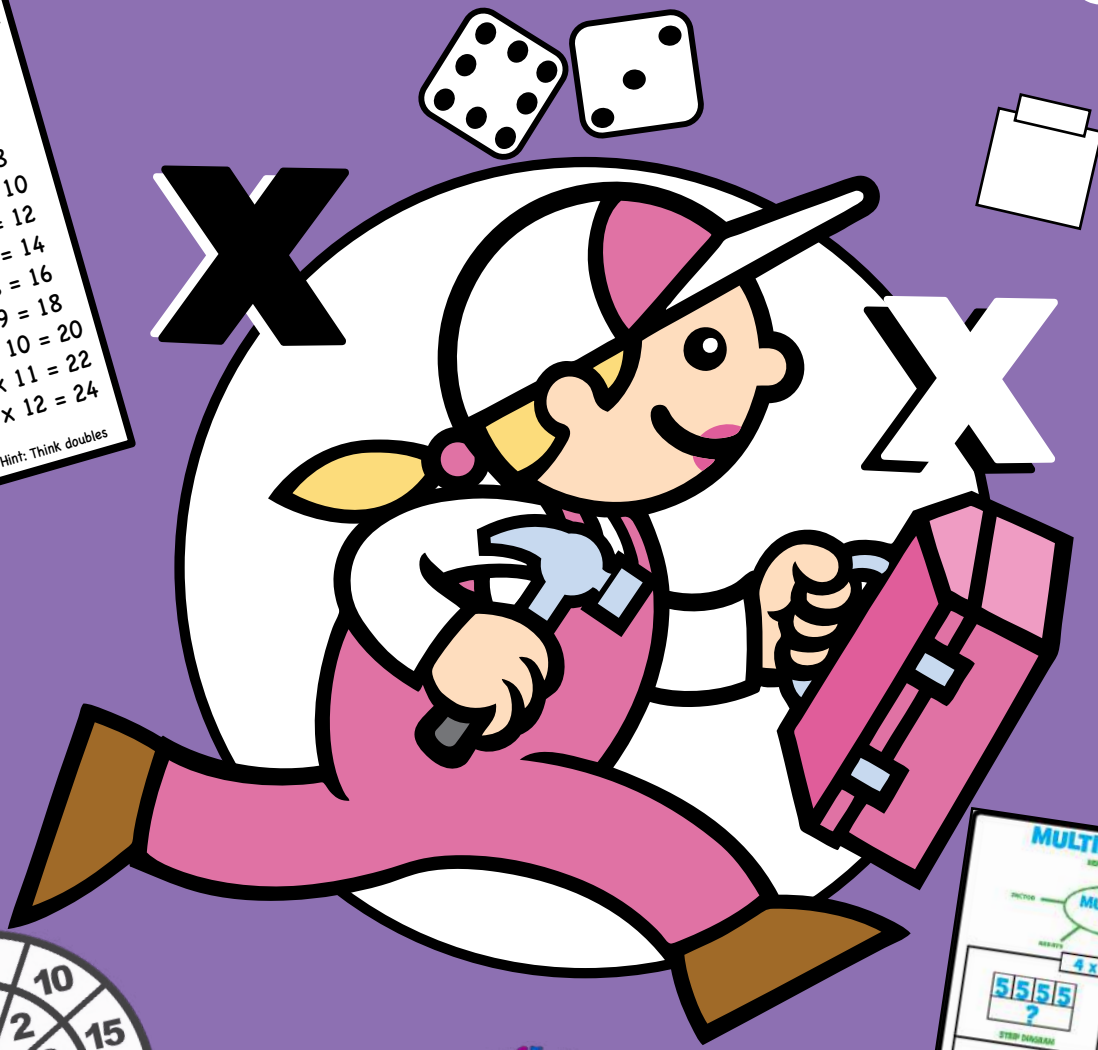
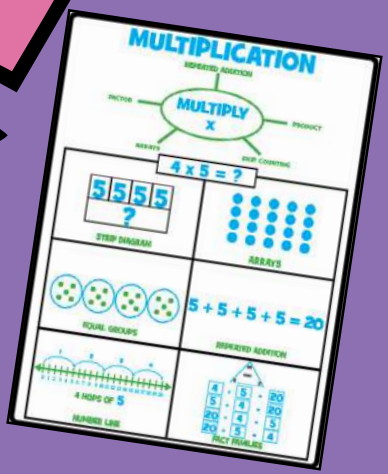
GUIDED MATH TEACHER'S MULTIPLICATION TOOL KIT

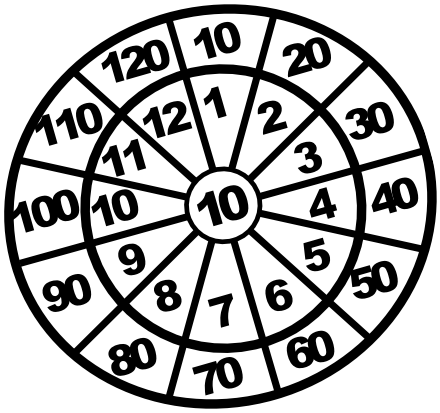
3-5

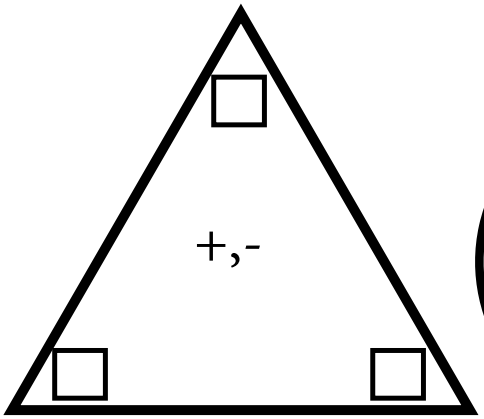


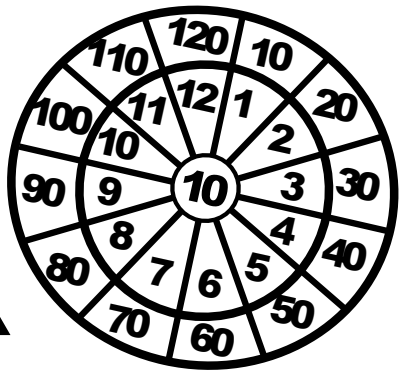




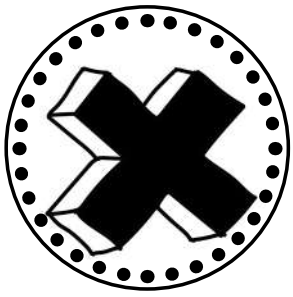
DR. NICKI NEWTON
Math Fact Fluency Playground

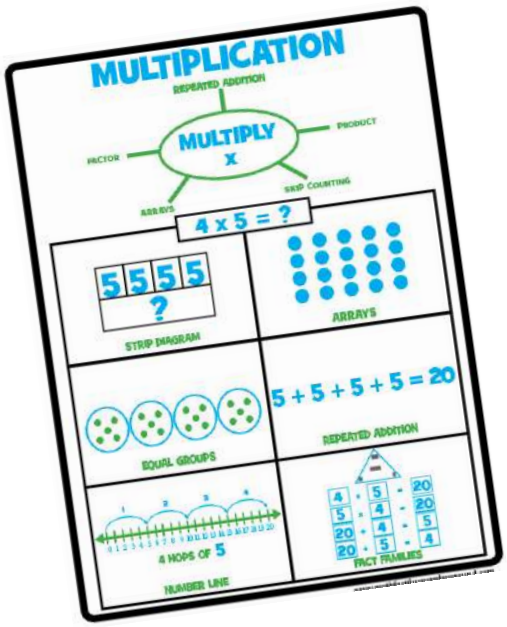


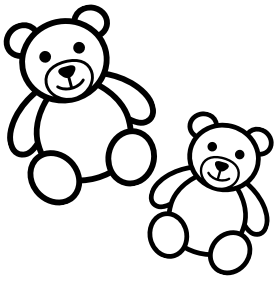


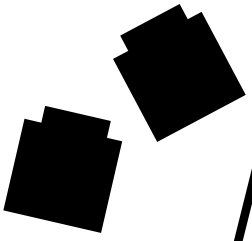


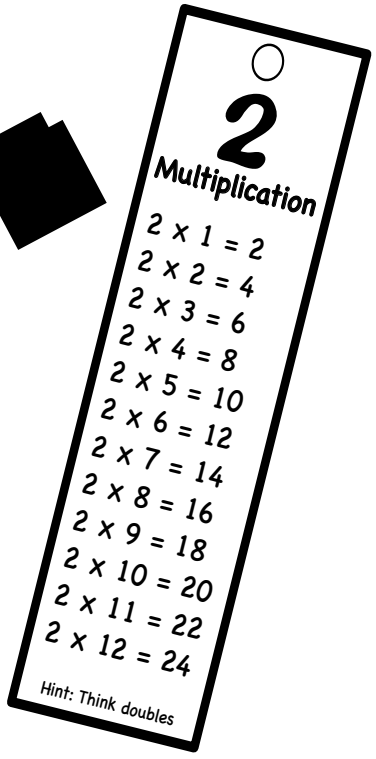
MULTIPLICATION TOOL KIT











Guided Math Teacher's Multiplication Toolkit

K-2

Dr. Nicki Newton

Math Fact Fluency Playground

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Other Books in this Series

Guided Math Teacher's Addition Toolkit
Guided Math Teacher's Decimal Toolkit
Guided Math Teacher's Division Toolkit
Guided Math Teacher's Hundred Grid Toolkit
Guided Math Teacher's Number Paths,
Number Ladders, and Number Lines Toolkit
Guided Math Teacher's Subtraction Toolkit

Math Fact Fluency Playground

Dedicated to Mom and Pops, Always

Contents

Acknowledgements

I would like to thank many people for their support, expertise, guidance, and encouragement during this project. First of all I would like to thank God, without Him this would not be possible. Second, I would like to thank my mom, pa, big mom, and granddaddy. Third, I would like to thank my family for all their love and support, especially my Tia that calls me every day and asks me “What have you accomplished today?” Next, I would like to thank all of my friends that support me all the time. This book series would not have been possible without the continual support of all of them. Finally, I would like to thank everyone that has helped me write this book. There have been many people from the Gigglenook Team that have worked on this project. Thank you to all of you for your continual support.

Author's Note

Welcome to this book!

I am so excited that you are here to share this with me. This is the everything you ever wanted, needed, thought you might need, never even knew that you needed mega book of guided math multiplication templates. This book is organized by the priority standards topics that you will teach in k-2 for adding and subtracting within 20. It is written as a k-2 book in the spirit of acceleration and differentiation. The templates are differentiated along the learning progression so that you can meet your students where they are in small groups.

How to Use this Book!
This book has templates that the teacher can use for guided math groups, whole class activities, workstations and homework! The teacher can pull the different templates and make a binder for each person in the group. In the binder, put the templates in sheet protectors or laminate them so they can be used over and over again! Each student will have their own binder and they can use it as needed!

Big Ideas/Priority Standards
This book is aligned to the Big Ideas/Priority standards in k-2. It can be used as a supplement to any program. We have created a variety of templates to address the variations in state standards. These templates will provide you a way to reach back to catch up as well as extend learning for those students who are ready to go to the next steps.

Learning Trajectories
Speaking of steps, we have based all of our templates with the learning trajectories in mind. A learning trajectory is a developmental path that shows the landscape of learning a particular concept. Clements and Sarama have written extensively about learning trajectories (www.learningtrajectories.org). In the front of each book, you will find the learning trajectories for the topic.

Guided Math

Guided Math is a way of teaching students in small groups. Small groups allow us to get up close and personal with our students and their learning. In a small guided math group, there should be no more than 3-5 students. Groups meet for 10-15 minutes. The focus is on DOING MATH. These templates help you to do just that! They provide a space for students to explore, think, talk and work. In the small guided math group, students will make sense of math through working with their peers, their teacher and the different math materials (thinking mats, manipulatives, vocabulary/language talk frames). While students are working together, the teacher guides them, asks important questions and provides the necessary feedback on their attempts at making sense of the math so that they can make the necessary connections and corrections and build a deeper understanding of the math concepts. The learning spirals and children build on prior knowledge as they engage in new experiences. (Dewey 1933/1998; Piaget, 1972; Vygotsky, 1978; Bruner. 1973, 1990). In the guided math group, the student's should spend most of the time doing math rather than listening to the teacher talk about math.

Experiences are scaffolded in a way to maximize the learning opportunities. Students are working in their Zone of Proximal Development, meaning that they are working at a level that is just right, not too easy and not too difficult (Vygotsky, 1978). Through interaction with more capable peers, adults who are facilitating their learning and artifacts (in this case appropriately selected materials such as manipulatives, books, computer programs etc.), students make meaning of the math (Vygotsky).

Differentiated Instruction

As Coco Aguirre (my mentor teacher) had hanging above the threshold of her door, "If a student doesn't learn the way you teach, then teach the way they learn." This is a simple but powerful truth. Meet the children where they are and then take them to the next level. For me, differentiation is about always asking myself, "If they aren't getting it, what can I do differently?" These templates provide you an option to scaffold the learning so that all students have access to the grade level content!

Tomlinson (1999) speaks of how differentiated instruction results in academically responsive classrooms. In this type of classroom teachers are aware of the academic levels of their students and create curriculum designed to respond to their needs. Tomlinson stated that at its most basic level, differentiating instruction means "shaking up" what goes on in the classroom so that students have multiple options for taking in information, making sense of ideas, and expressing what they learn. In other words, a differentiated classroom provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively (2001).

While differentiation "advocates attending to students as individuals, it does not assume a separate assignment for each learner"(Tomlinson). "Differentiation needs to be student-centered, rooted in assessment, and dynamic" Serravello, 2010. We are constantly adjusting our teaching in response to what students are telling and showing us in their work and talk. Teachers who differentiate must take the time to get to know their students well. They have to understand them as people, learners and know what motivates them to reach their goals. Robb notes that "Differentiation is a way of teaching, it's not a program or a package of worksheets. It asks teachers to know their students well so they can provide each one with experiences and tasks that will improve learning" (2008, p.13).

Math Talk

One of the most important things that happen in the math class is the discussion. We have to teach students to be active participants and engaged listeners. We want them to respect each other deeply and seek to truly understand each other without judgment. They have to learn to develop and defend their thinking, justify their answers and respectfully disagree with each other. The National Council of Teachers of Mathematics (NCTM) defines math talk as "the ways of representing, thinking, talking, and agreeing and disagreeing that teachers and students use to engage in [mathematical] tasks" (NCTM, 1991).

Questioning

It is so important to ask good questions. The questions should reach beyond the answer. As Phil Daro notes, we have togo"beyondanswer-getting(https://vimeo.com/79916037)." The questions in the guided math group should be designed to get students to understand more fundamentally the mathematics of the grade level. Good questions don't just happen, they are planned for. The teacher should know ahead of time the types of questions that she will ask and why she will ask them. In the plan for the lesson, the teacher should brainstorm some possible questions that push student thinking. These are not yes or no questions, but rather ones that require students to explain themselves, show what they know and defend and justify their thinking.

More Multiplication Posters!

PROGRESSION OF MULTIPLICATION

JOURNEY TO FLUENCY

FLUENCY IS

1. EFFICIENCY
2. ACCURACY
3. FLEXIBILITY

(NRC; Kilpatrick et al., 2001; NCTM 2000; NCTM, 2014).

RESEARCH NOTES

1. COUNTING ALL
2. additive calculation
3. count by
4. pattern based
5. learned products
6. hybrids

-Sherin and Fuson 2005

- MULTIPLYING BY SQUARES — 8 x 8
- MULTIPLYING BY 7 — 7 x 6
- MULTIPLYING BY 9 — 9 x 2
- MULTIPLYING BY 6 — 6 x 5
- MULTIPLYING BY 8 — 8 x 6
- MULTIPLYING BY 3 — 3 x 9
- MULTIPLYING BY 4 — 4 x 3
- MULTIPLYING BY 2 — 2 x 7
- MULTIPLYING BY 5 — 5 x 6
- MULTIPLYING BY 0 — 0 x 1
- MULTIPLYING BY 1 — 1 x 5
- MULTIPLYING BY 10 — 10 x 5

SET A GOAL. MAKE A PLAN. ACHIEVE YOUR GOAL!

PROGRESSION OF MULTIPLICATION

RESEARCH NOTES

1. counting all
2. additive calculation
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-Sherin and Fusön, 2005)

FLUENCY IS

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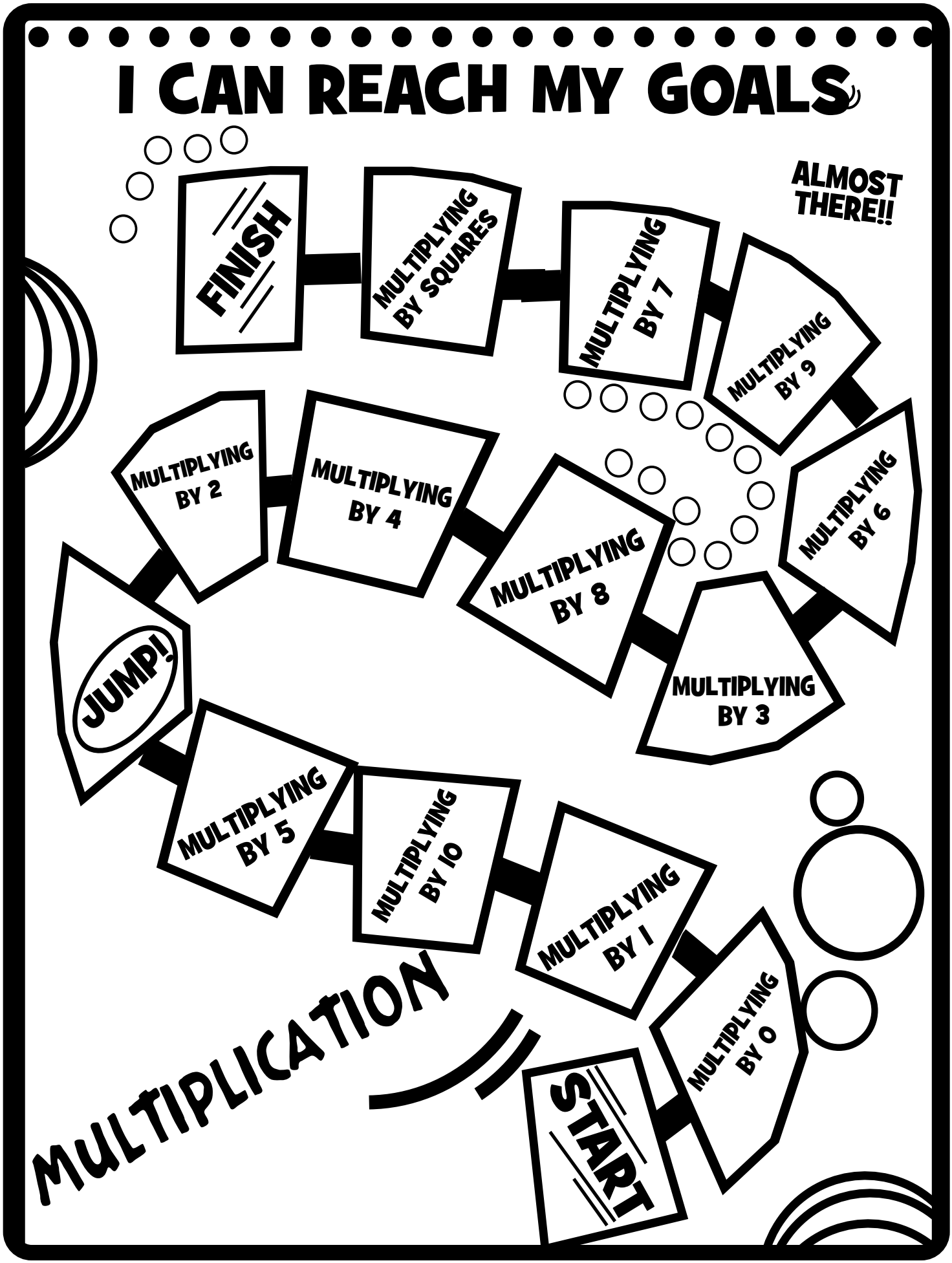
(NRC; Kilpatrick et al., 2001; NCTM 2000; NCTM, 2014).

JOURNEY TO FLUENCY

- MULTIPLYING BY SQUARES — 8 X 8
- MULTIPLYING BY 7 — 7 X 6
- MULTIPLYING BY 9 — 9 X 2
- MULTIPLYING BY 8 — 8 X 6
- MULTIPLYING BY 3 — 3 X 9
- MULTILYING BY 6 — 6 X 5
- MULTIPLYING BY 4 — 4 X 3
- MULTIPLYING BY 2 — 2 X 7
- MULTIPLYING BY 5 — 5 X 0
- MULTIPLYING BY 0 — 0 X 1
- MULTIPLYING BY 1 — 1 X 9
- MULTIPLYING BY 10 — 10 X 5

SET A GOAL. MAKE A PLAN. ACHIEVE YOUR GOAL!

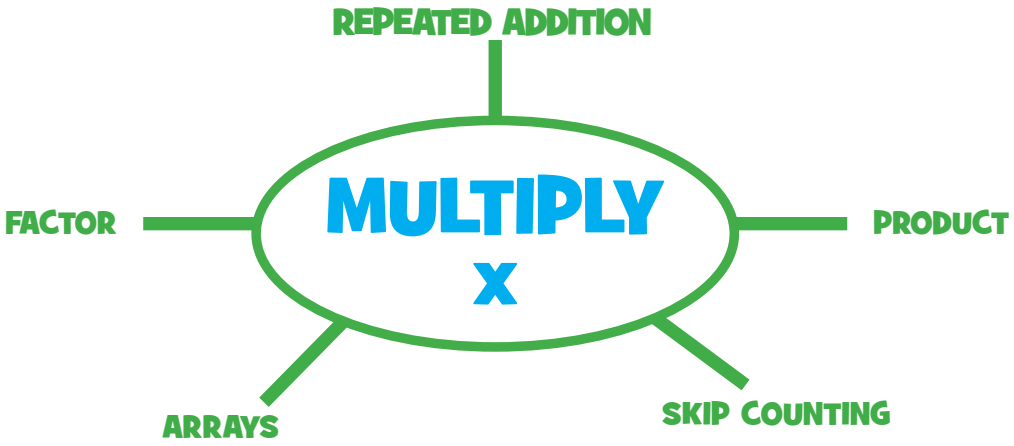
I CAN REACH MY GOALS



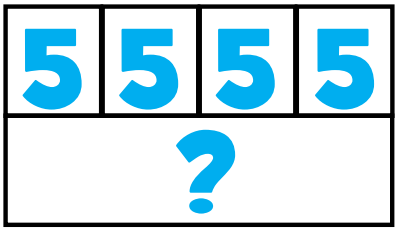
MULTIPLICATION

FACTS	STRATEGY
0	Multiply by zero gets you NOTHING! The answer is always zero 0 × 4 0 × 5 0 × 10
1	Multiply by one and the answer is the number you multiplied! 1 × 2 = 2 1 × 5 = 5 1 × 9 =. 9
2	Double the number! 2 × 5 = 5 + 5
3	Think doubles plus 1 more 3 × 4 think 2 × 4 Plus 1 more set ➡ (2 × 4) + 4
4	Think double 2's 4 × 5 think (2 × 5) + (2 × 5)
5	Think half of 10 5 × 7 is half of 10 × 7 35 is half of 70
6	Think double 3's 6 × 8 think (3 × 8) + (3 × 8)
7	To Multiply a number by 7, just break 7 apart. Multiply by 5 and then by 2 7 × 6 = (5 × 6) + (2 × 6)
8	Think double 4's 8 × 7 think (4 × 7) + (4 × 7)
9	To Multiply by 9 just think 10 and subtract a set! 9 × 5 think 10 × 5 ➡ 10 × 5 = 50 Then Subtract 5 ➡ 50 – 5 = 45
10	Skip count by 10s or just think it's that many 10's 10 × 3 10, 20, 30 10 × 4 10, 20, 30, 40 10 × 5 10, 20, 30, 40, 50
SQUARES	Multiply a number by itself! It's a square number 2 × 2  3 × 3  4 × 4 

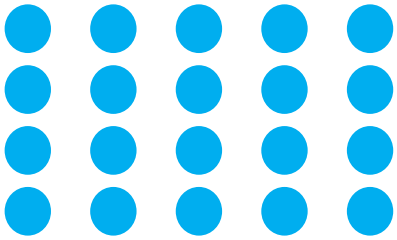
MULTIPLICATION



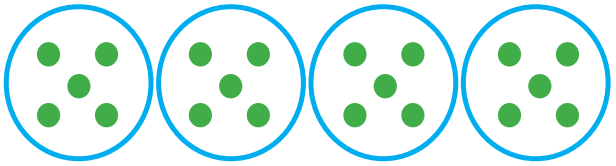
4 x 5 = ?



STRIP DIAGRAM



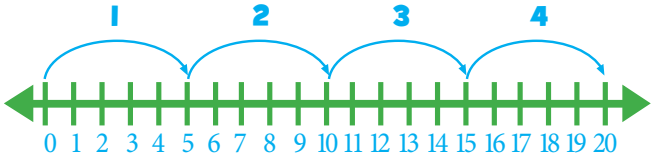
ARRAYS



EQUAL GROUPS

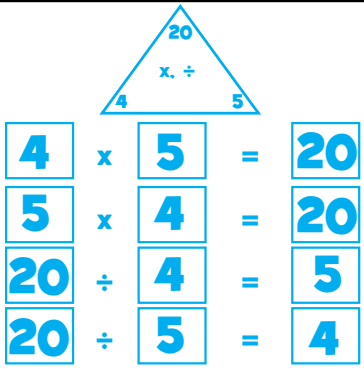
5 + 5 + 5 + 5 = 20

REPEATED ADDITION



4 HOPS OF 5

NUMBER LINE



FACT FAMILIES

VOCABULARY CARDS

MULTIPLICATION

$3 \times 1 = 3$

MULTIPLICATION SIGN (TIMES)

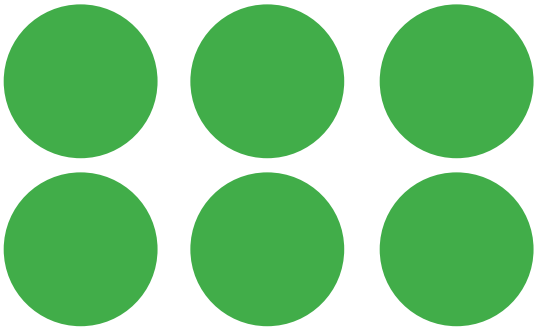
$2 \times 4 = 8$

PRODUCT

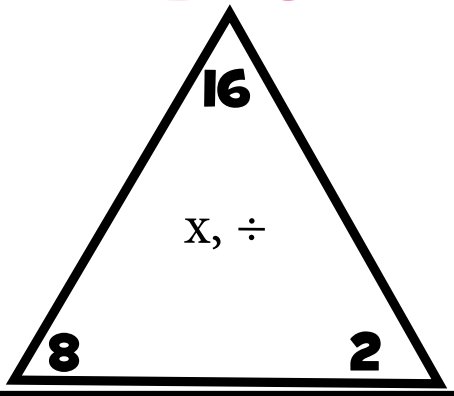
$5 \times 3 = 15$

VOCABULARY CARDS

MULTIPLY



RELATED FACTS



2 x 8 = 16

8 x 2 = 16

16 ÷ 8 = 2

16 ÷ 2 = 8

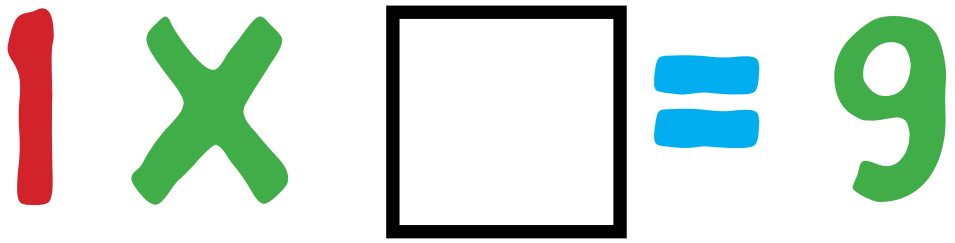
EQUAL SIGN

2 x 2 = 4

VOCABULARY CARDS

Addition Equation/ Number Sentence

MISSING NUMBER



MULTIPLES

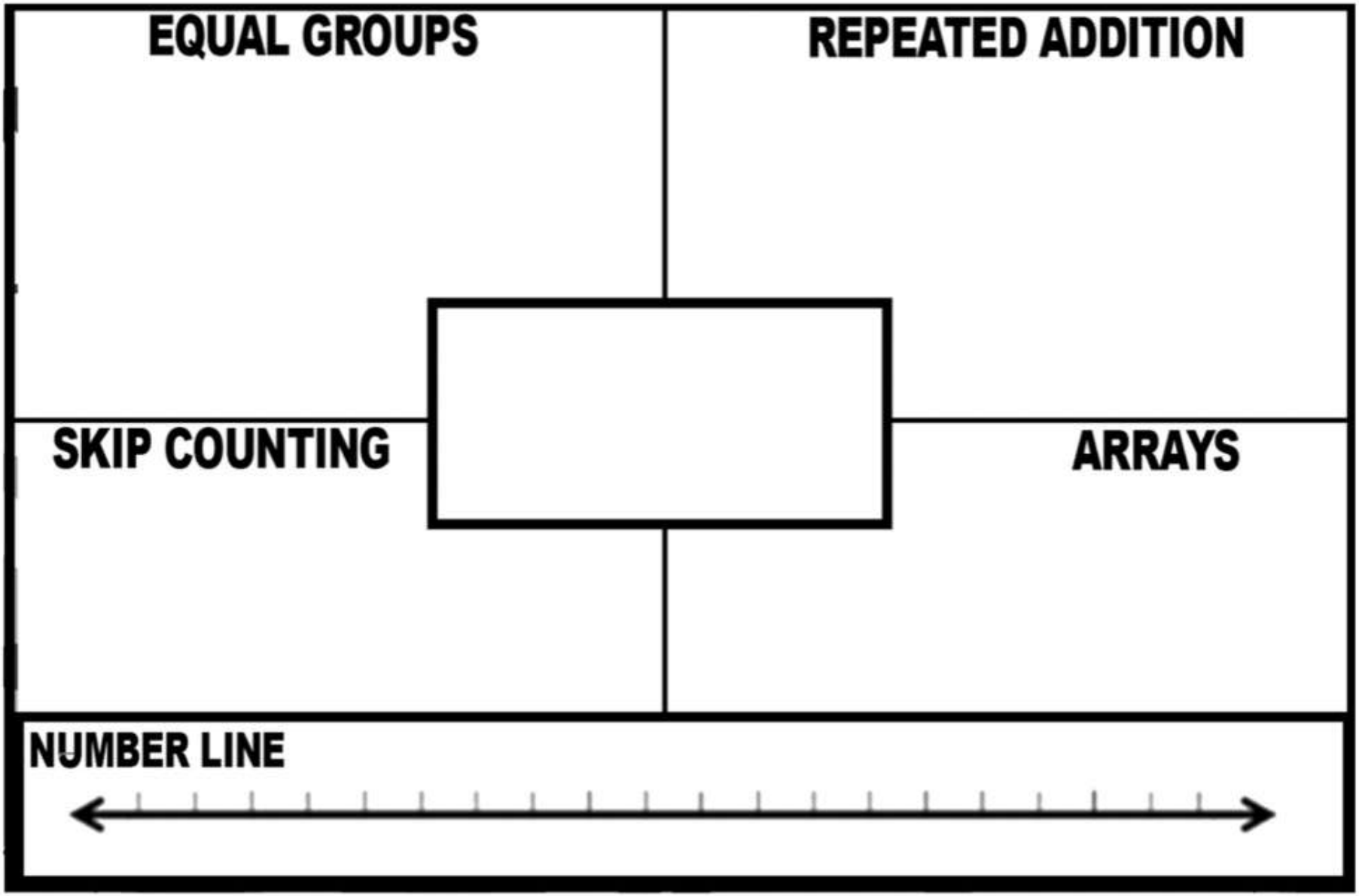
5 20 10

50 45

MULTIPLICATION MAT

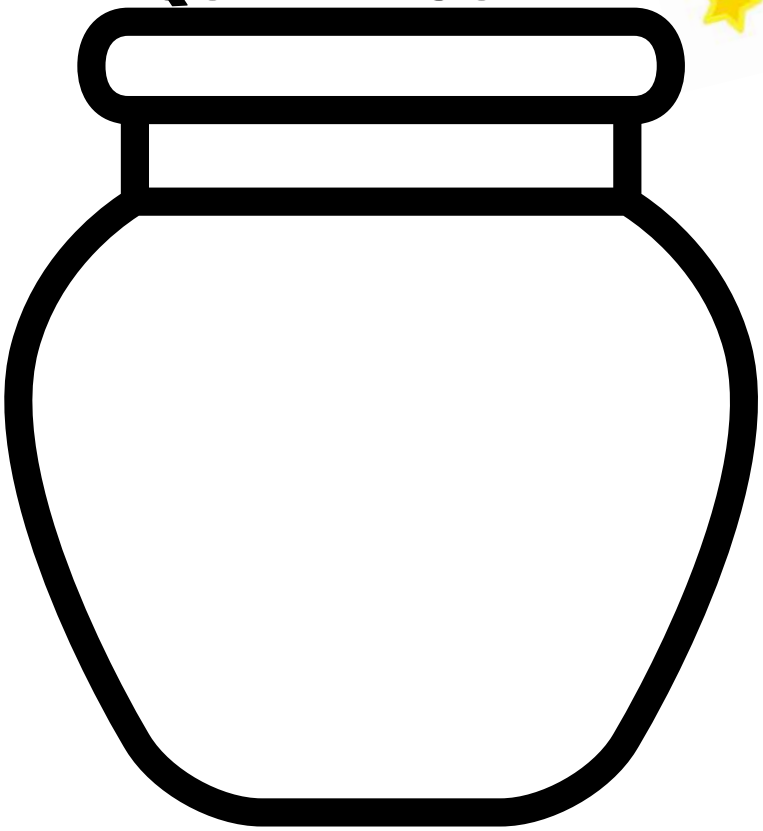
MODELS	STRATEGIES
EQUAL GROUPS	SKIP COUNTING
ARRAYS	REPEATED ADDITION
NUMBER LINE	THINKING ABOUT RELATIONSHIPS

MULTIPLICATION



MULTIPLICATION MAT

EQUAL GROUPS



1 x ☐ = ☐

MULTIPLICATION MAT

EQUAL GROUPS

POW!

ZAPP!

2 x ☐ = ☐

MULTIPLICATION MAT

EQUAL GROUPS

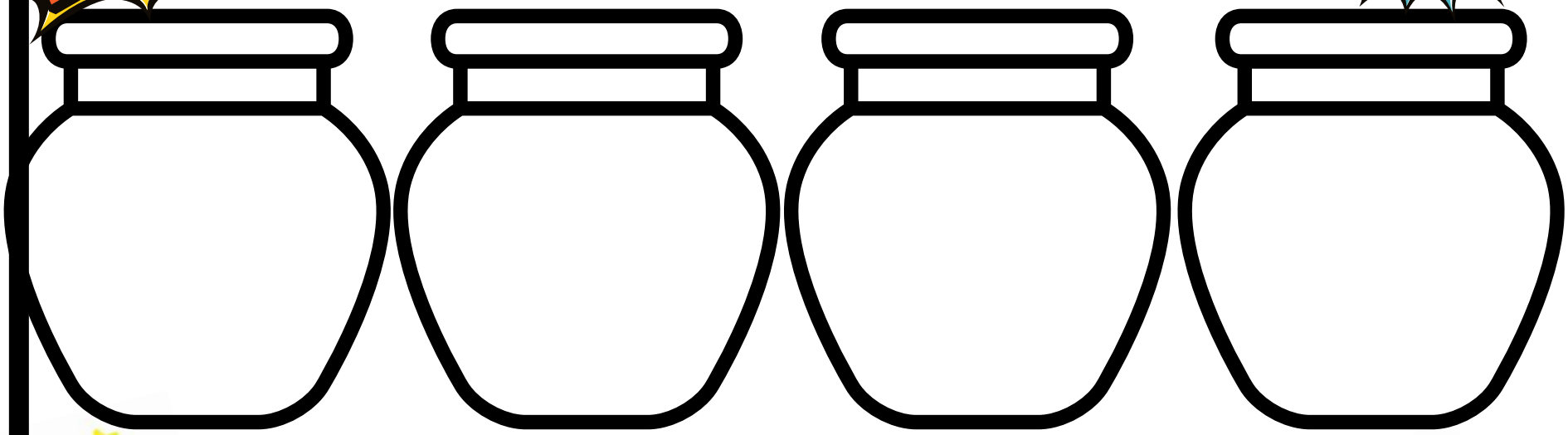
POW!

ZAPP!

3 x ☐ = ☐

MULTIPLICATION MAT

EQUAL GROUPS



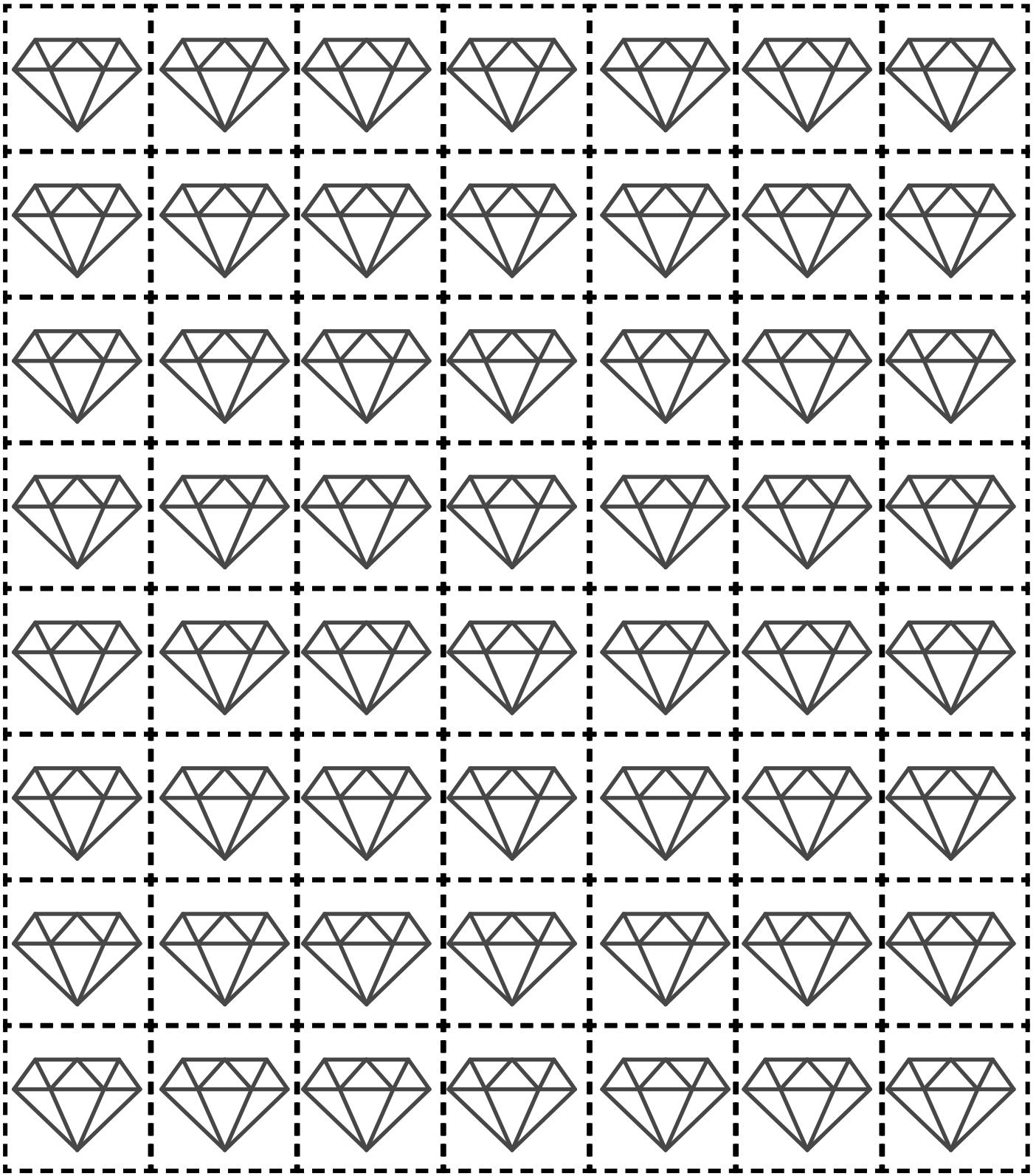
4 x ☐ = ☐

MULTIPLICATION MAT

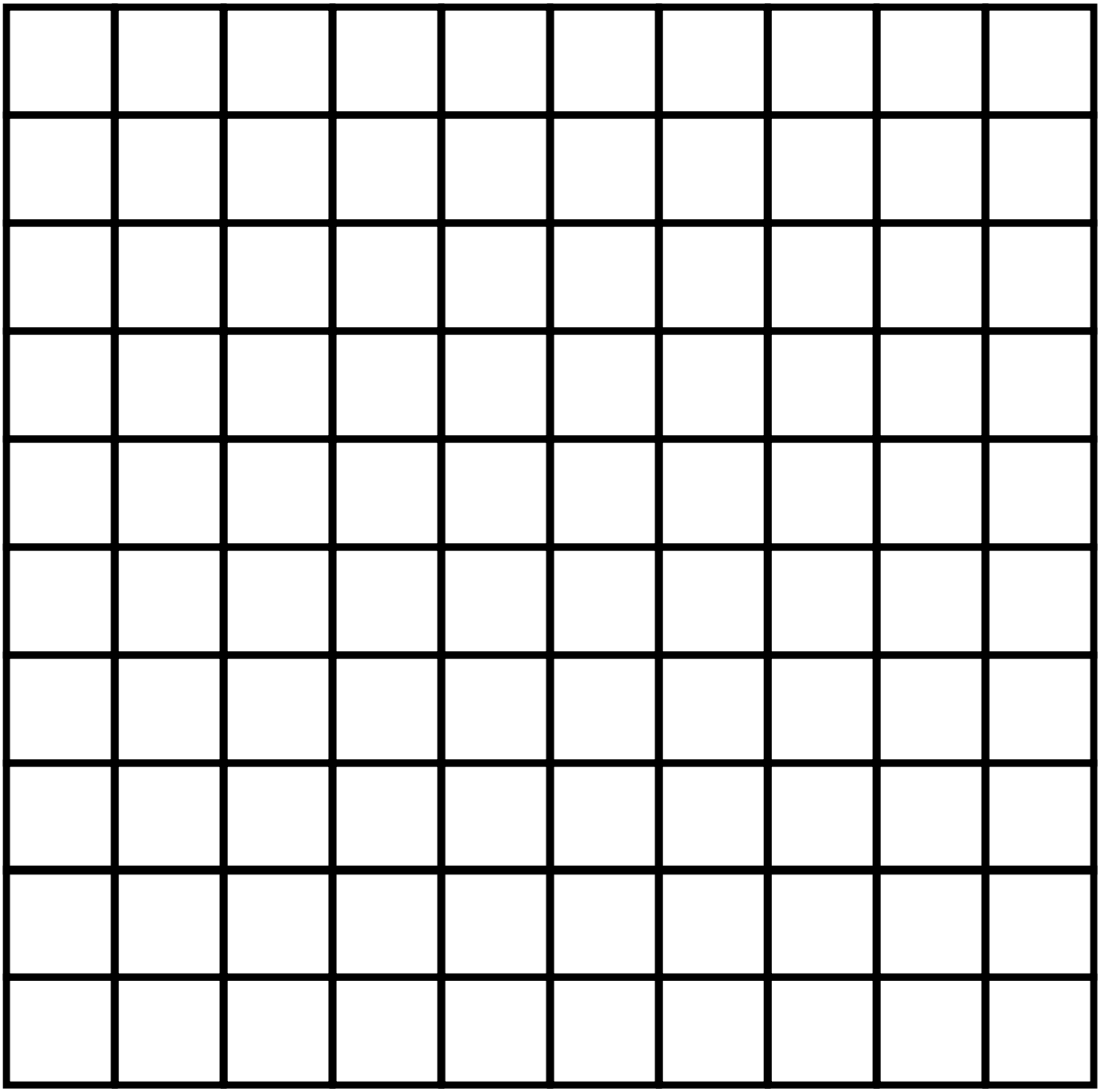
EQUAL GROUPS

5 x ☐ = ☐

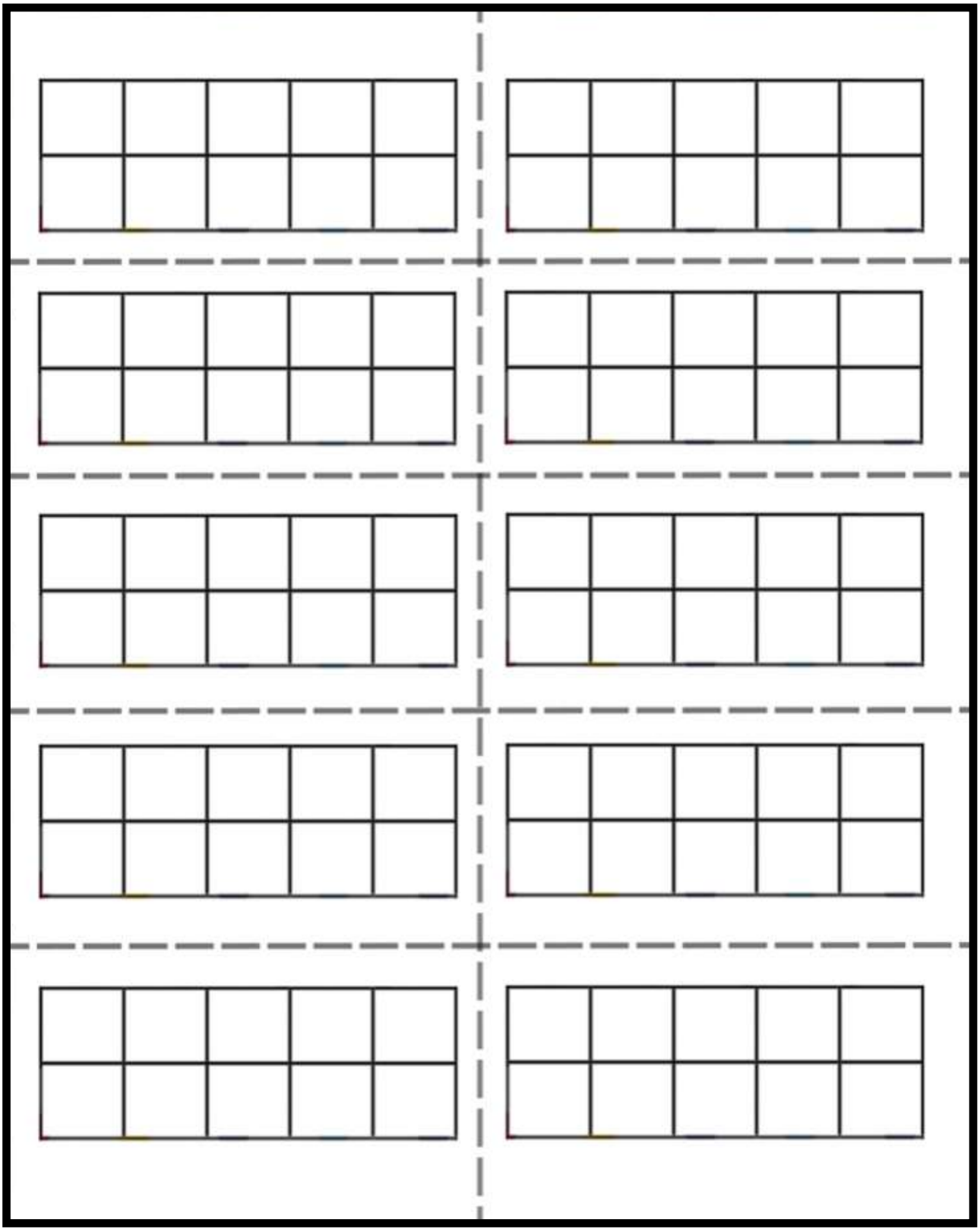
GEM STONES



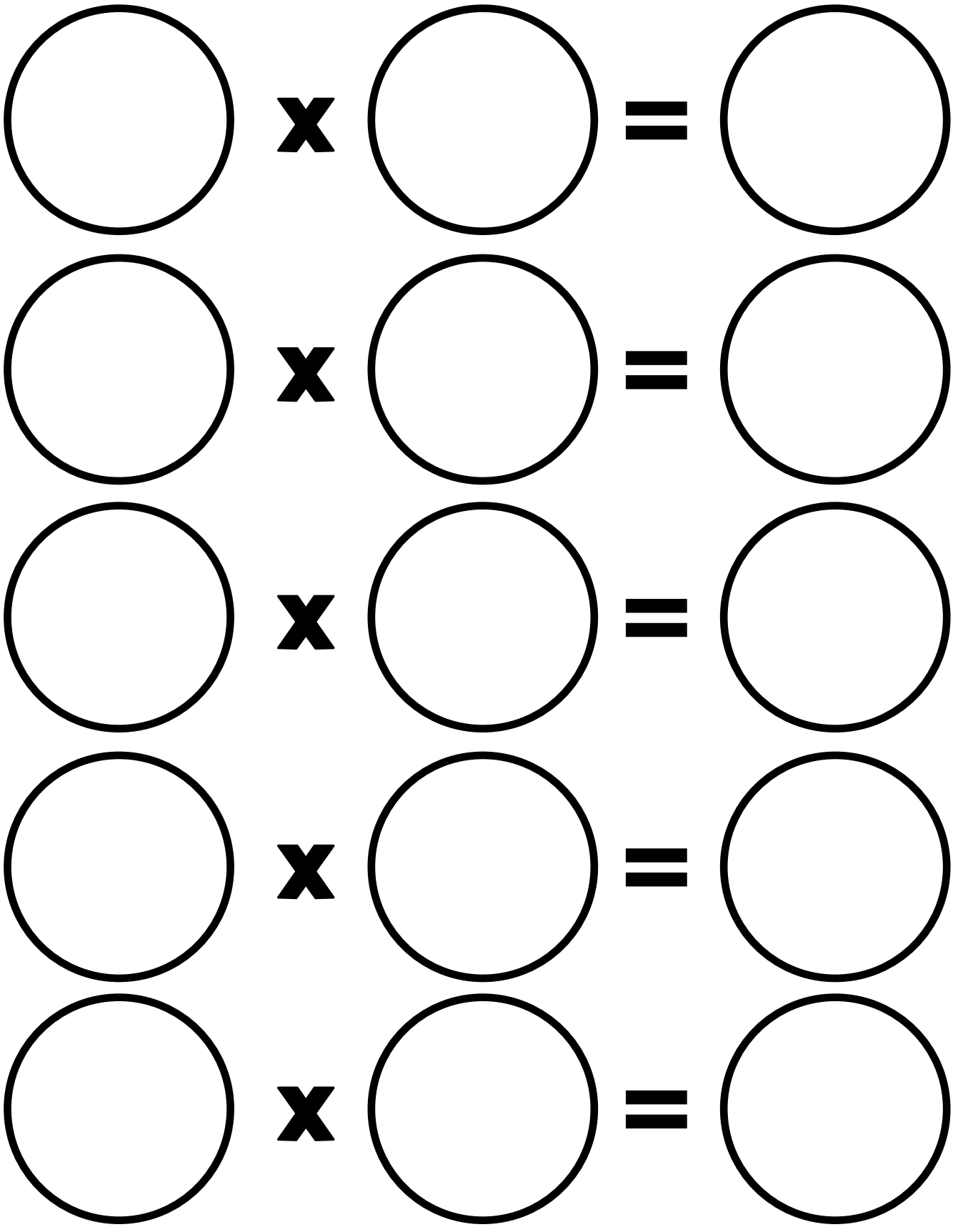
EMPTY HUNDRED GRID



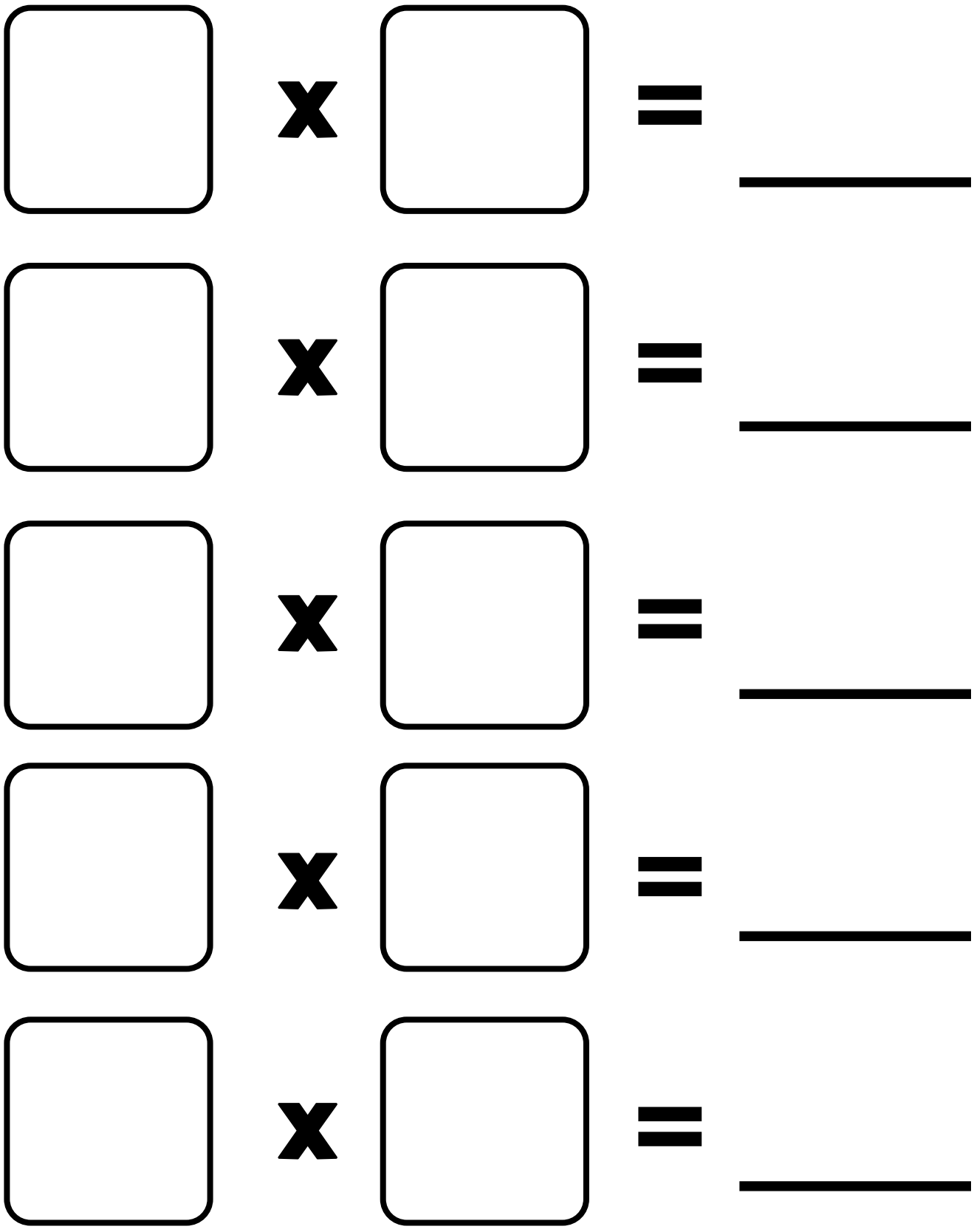
TEN FRAMES



MULTIPLICATION TEMPLATE



DICE TEMPLATE



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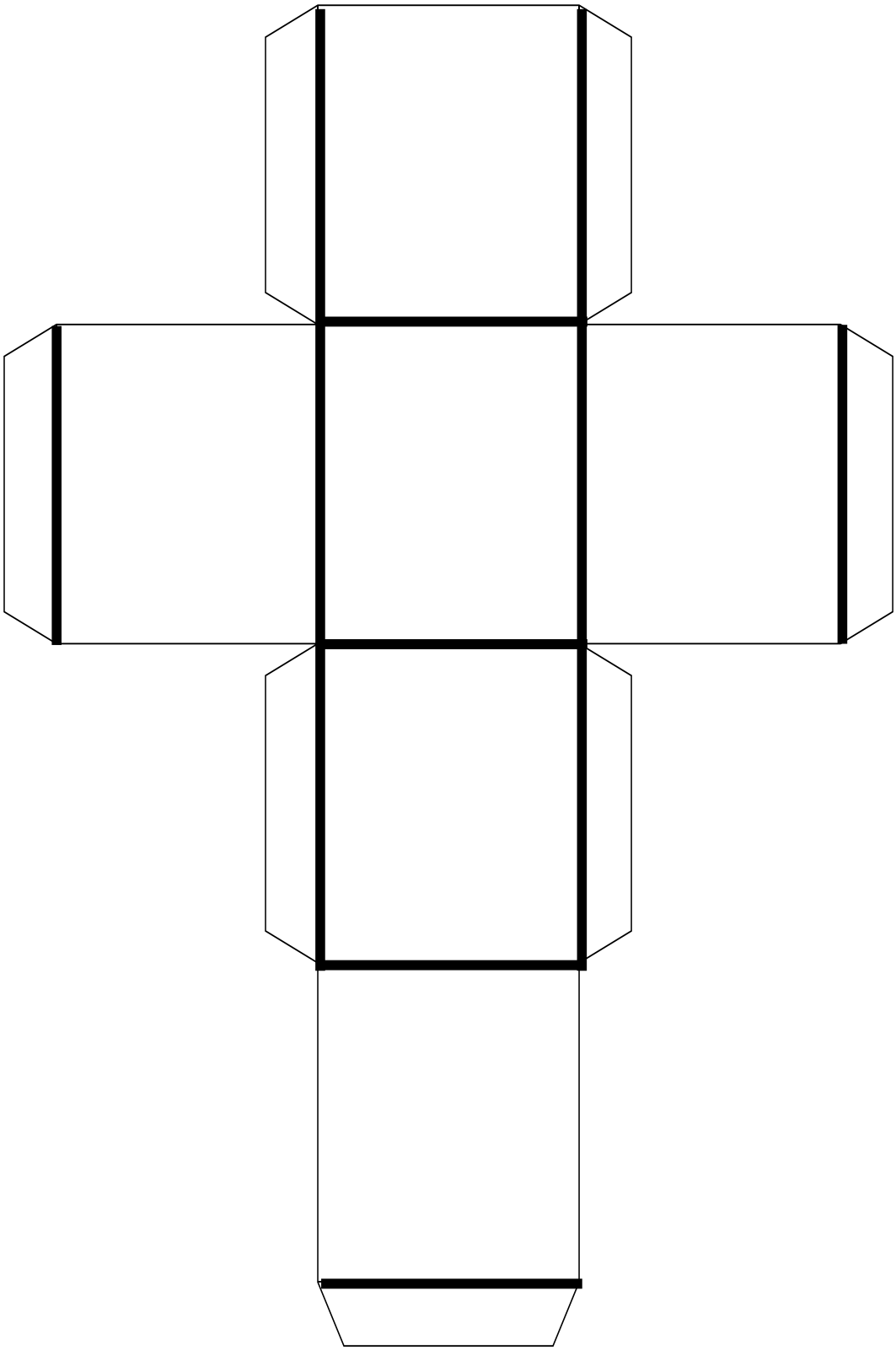

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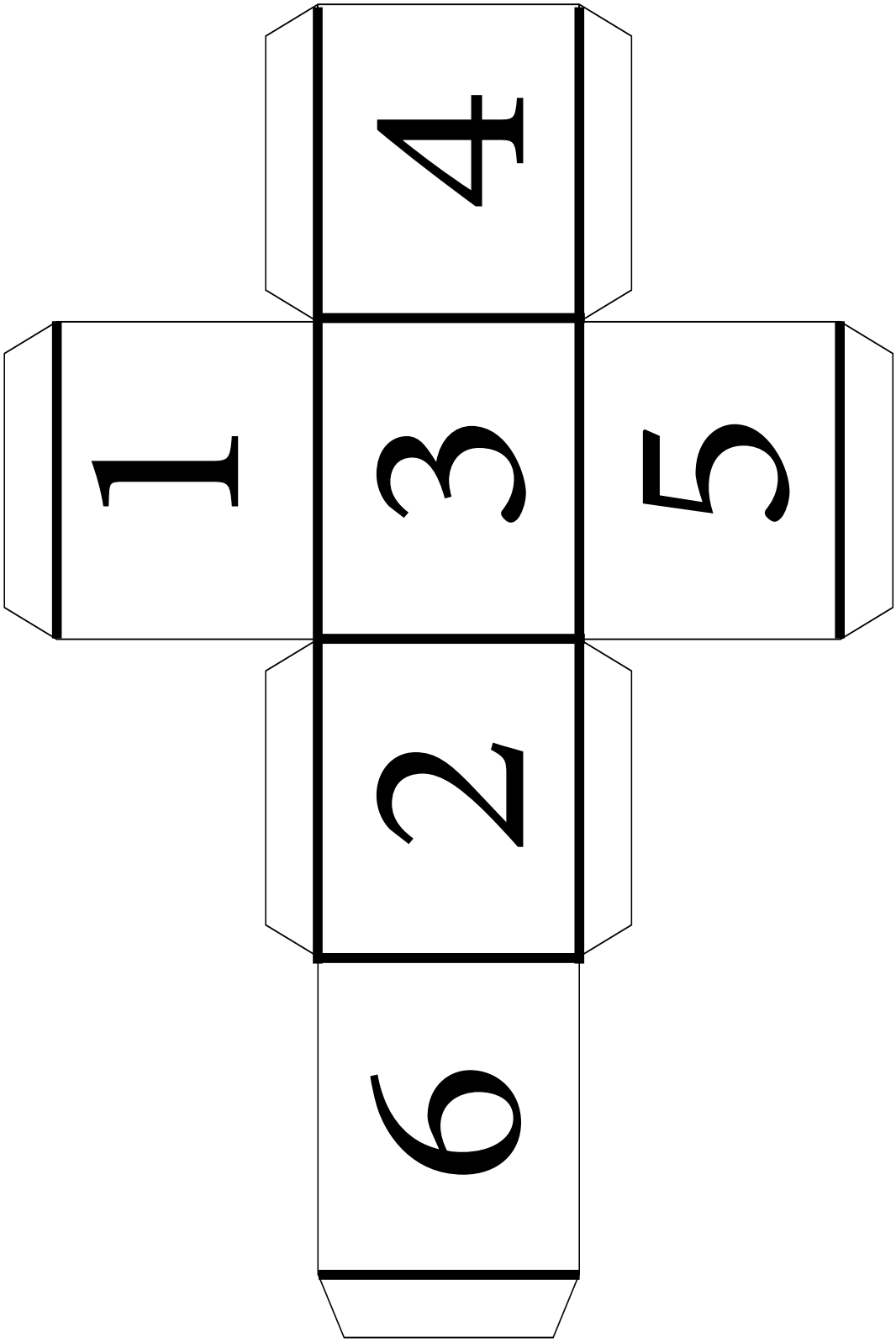

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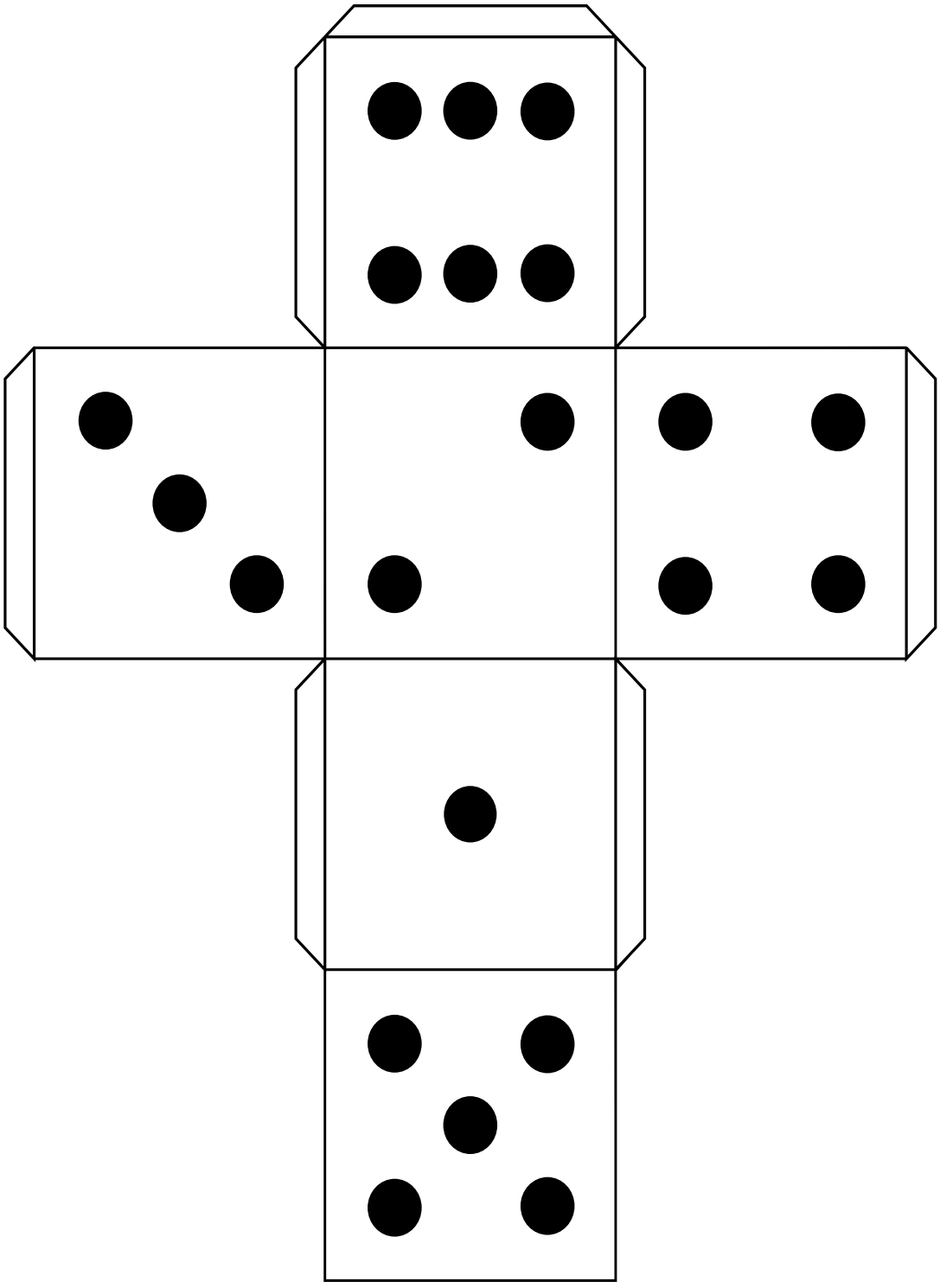
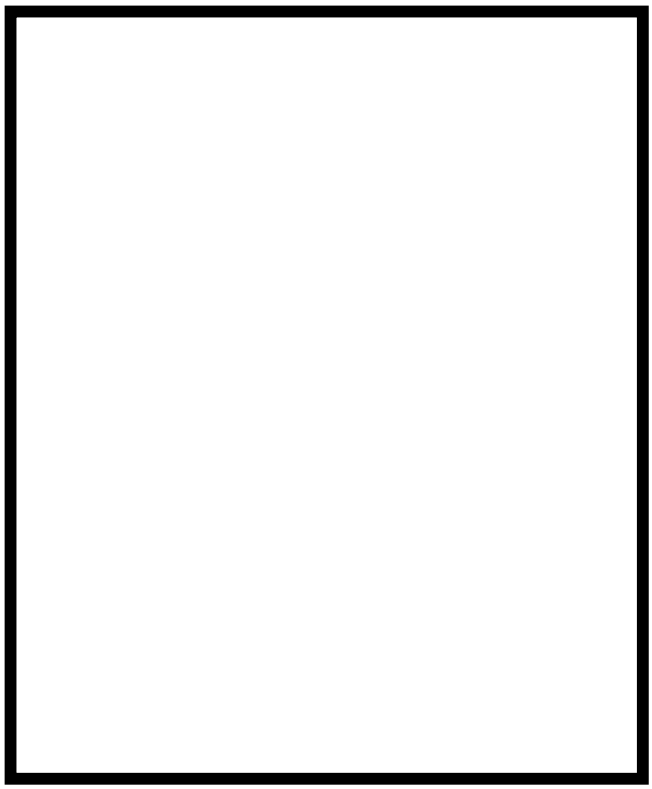
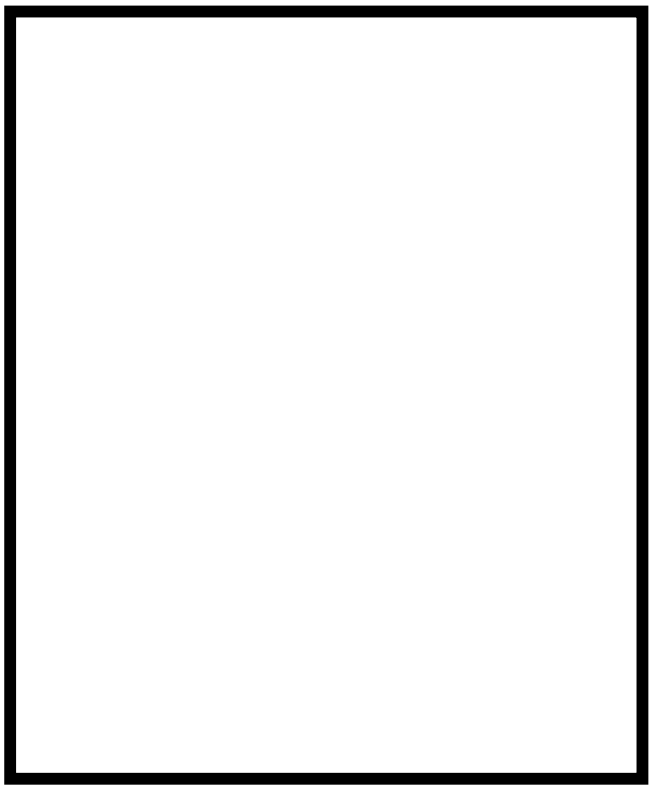


FLASHCARD TEMPLATE

FLASHCARD TEMPLATE





_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

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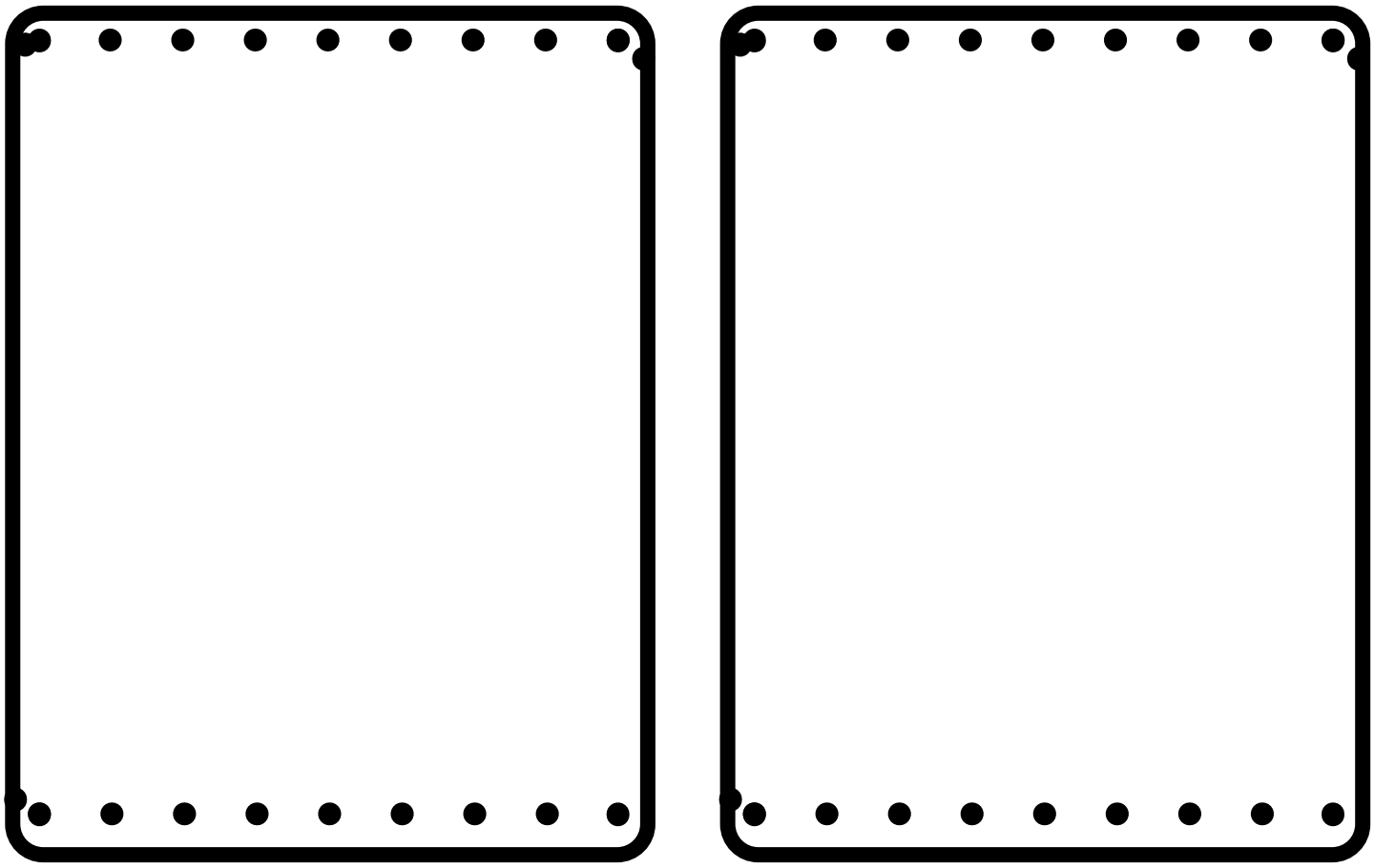
PLAYING CARDS TEMPLATE



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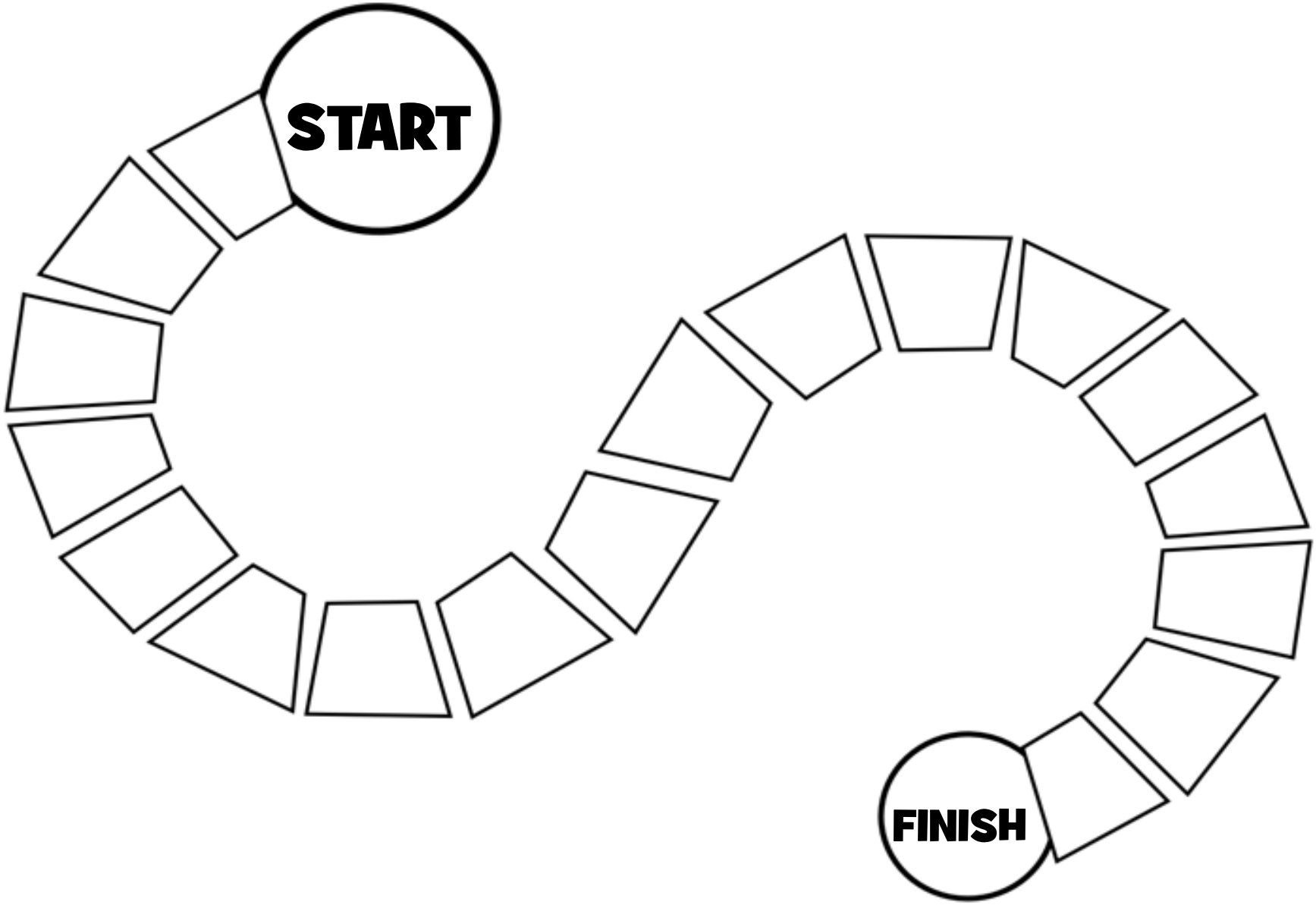
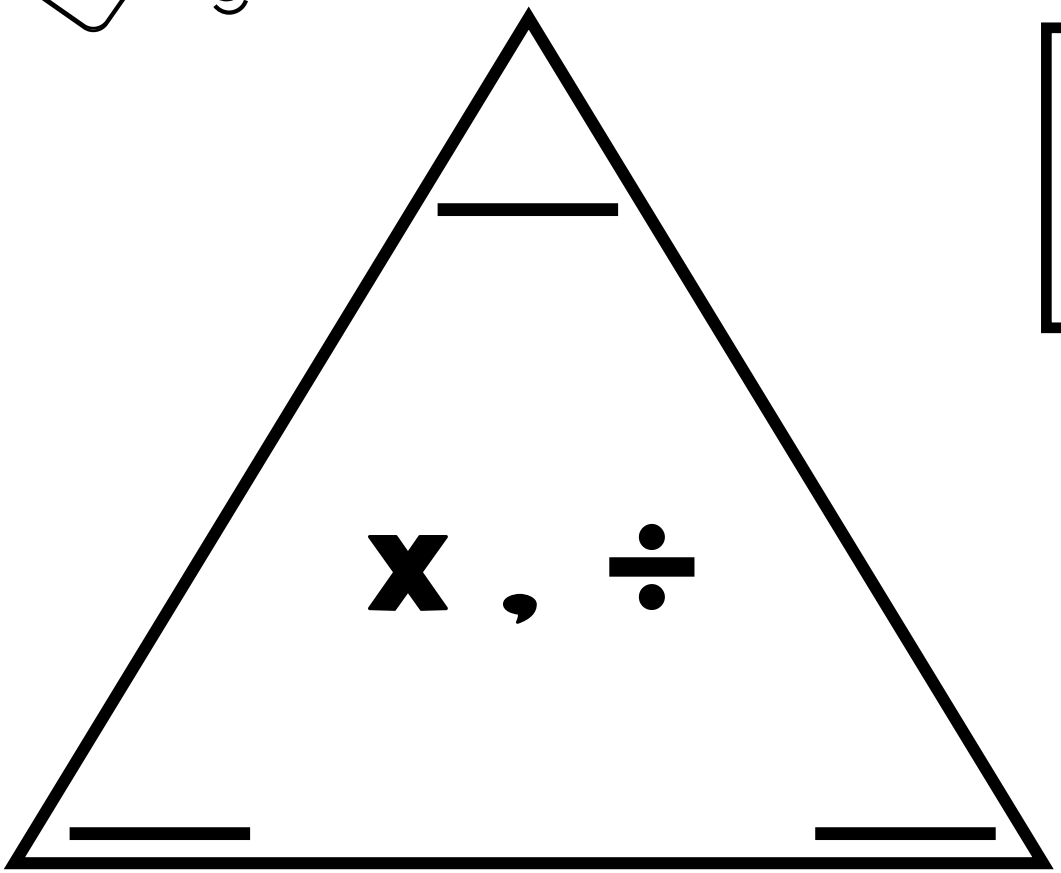
BOARD GAME TEMPLATE



FACT FAMILY TRIANGLE



_____ , _____ , _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

_____ x _____ = _____

MULTIPLICATION CHART

×	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

MULTIPLICATION CHARTS

2 Multiplication

2 x 1 = 2
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 Multiplication

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

4 Multiplication

4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40
4 x 11 = 44
4 x 12 = 48

5 Multiplication

5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
5 x 11 = 55
5 x 12 = 60

6 Multiplication

6 x 1 = 6
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30
6 x 6 = 36
6 x 7 = 42
6 x 8 = 48
6 x 9 = 54
6 x 10 = 60
6 x 11 = 66
6 x 12 = 72

7 Multiplication

7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
7 x 11 = 77
7 x 12 = 84

8 Multiplication

8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
8 x 9 = 72
8 x 10 = 80
8 x 11 = 88
8 x 12 = 96

9 Multiplication

9 x 1 = 9
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54
9 x 7 = 63
9 x 8 = 72
9 x 9 = 81
9 x 10 = 90
9 x 11 = 99
9 x 12 = 108

10 Multiplication

10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50
10 x 6 = 60
10 x 7 = 70
10 x 8 = 80
10 x 9 = 90
10 x 10 = 100
10 x 11 = 110
10 x 12 = 120

MULTIPLICATION TABLES

1

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

2

2 x 1 = 2
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

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

4

4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40
4 x 11 = 44
4 x 12 = 48

5

5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
5 x 11 = 55
5 x 12 = 60

6

6 x 1 = 6
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30
6 x 6 = 36
6 x 7 = 42
6 x 8 = 48
6 x 9 = 54
6 x 10 = 60
6 x 11 = 66
6 x 12 = 72

7

7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
7 x 11 = 77
7 x 12 = 84

8

8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
8 x 9 = 72
8 x 10 = 80
8 x 11 = 88
8 x 12 = 96

9

9 x 1 = 9
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54
9 x 7 = 63
9 x 8 = 72
9 x 9 = 81
9 x 10 = 90
9 x 11 = 99
9 x 12 = 108

10

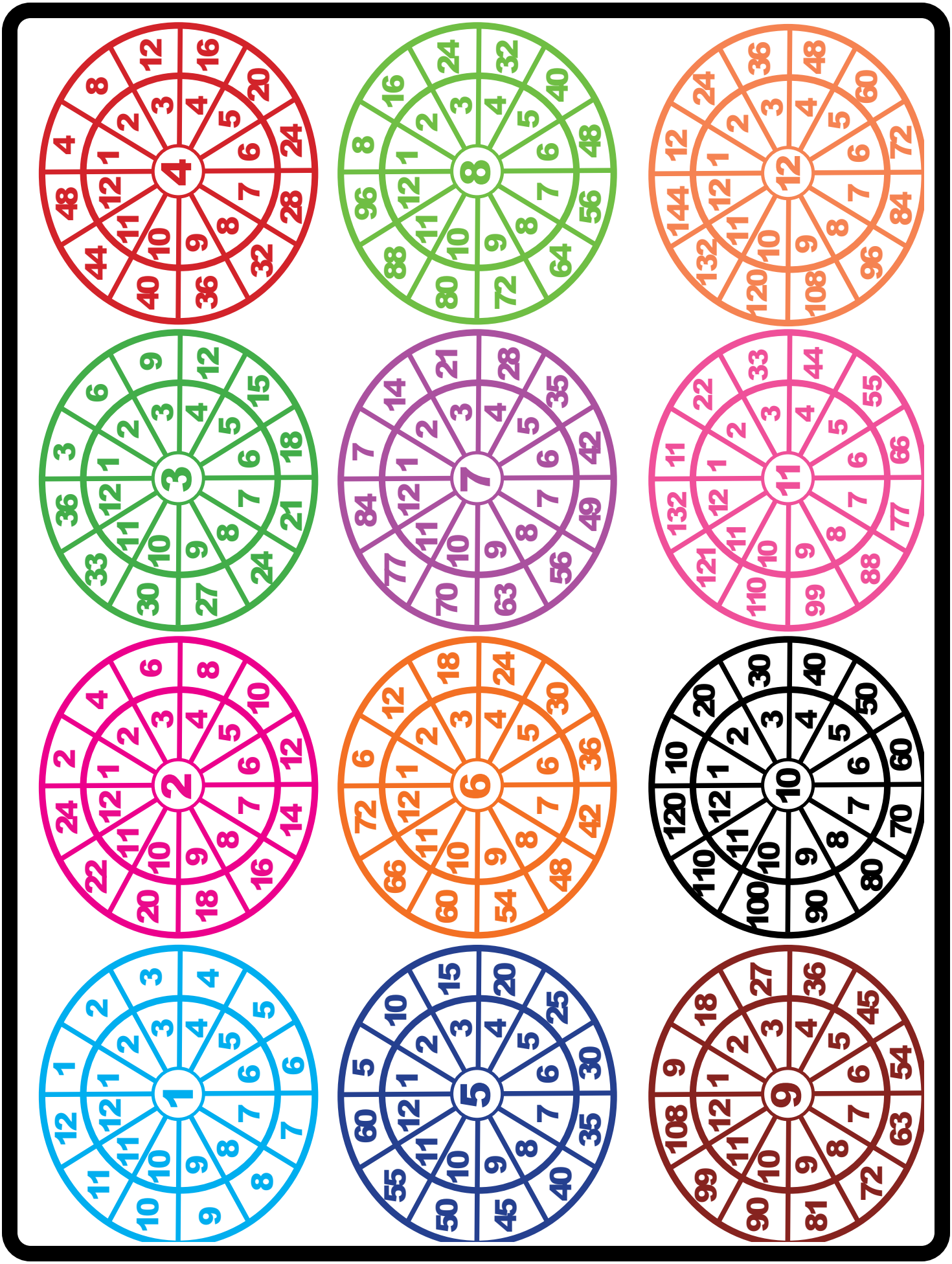
10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50
10 x 6 = 60
10 x 7 = 70
10 x 8 = 80
10 x 9 = 90
10 x 10 = 100
10 x 11 = 110
10 x 12 = 120

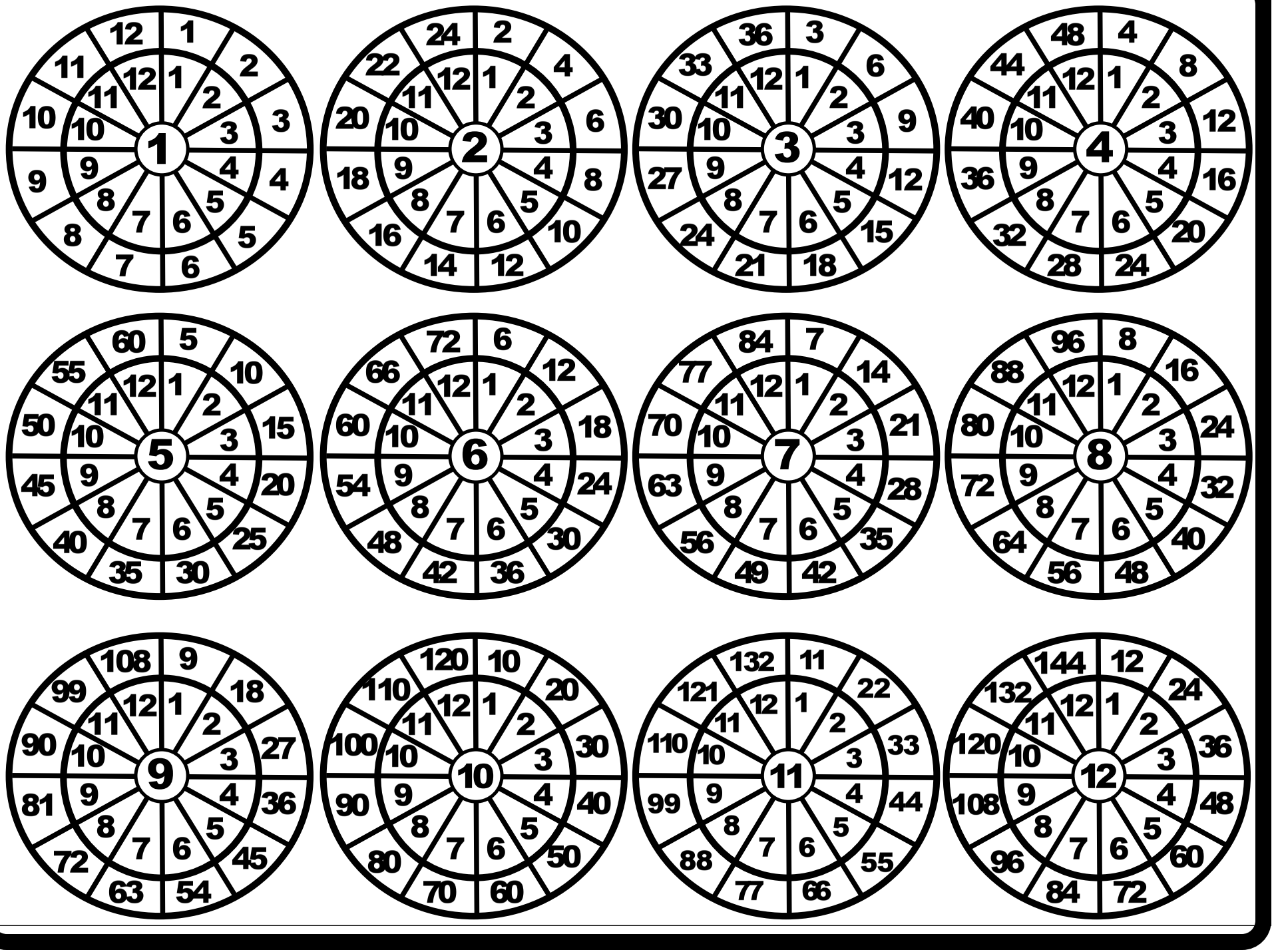
11

11 x 1 = 11
11 x 2 = 22
11 x 3 = 33
11 x 4 = 44
11 x 5 = 55
11 x 6 = 66
11 x 7 = 77
11 x 8 = 88
11 x 9 = 99
11 x 10 = 110
11 x 11 = 121
11 x 12 = 132

12

12 x 1 = 12
12 x 2 = 24
12 x 3 = 36
12 x 4 = 48
12 x 5 = 60
12 x 6 = 72
12 x 7 = 84
12 x 8 = 96
12 x 9 = 108
12 x 10 = 120
12 x 11 = 132
12 x 12 = 144


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

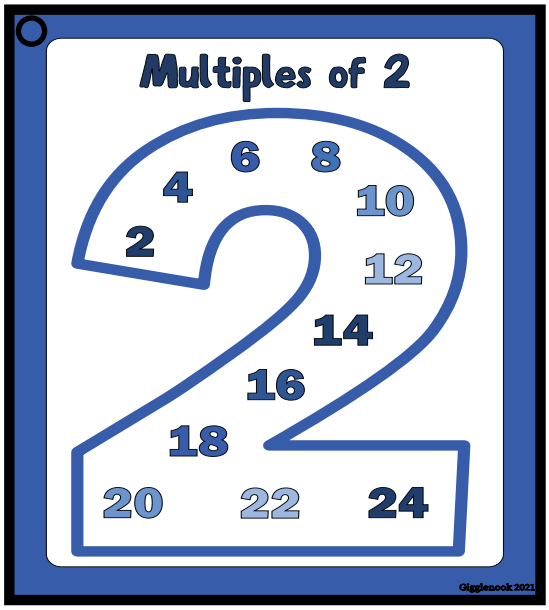

1
1 2 3 4 5 6 7 8 9 10 11 12
2
2 4 6 8 10 12 14 16 18 20 22 24
3
3 6 9 12 15 18 21 24 27 30 33 36
4
4 8 12 16 20 24 28 32 36 40 44 48
5
5 10 15 20 25 30 35 40 45 50 55 60
6
6 12 18 24 30 36 42 48 54 60 66 72
7
7 14 21 28 35 42 49 56 63 70 77 84
8
8 16 24 32 40 48 56 64 72 80 88 96
9
9 18 27 36 45 54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

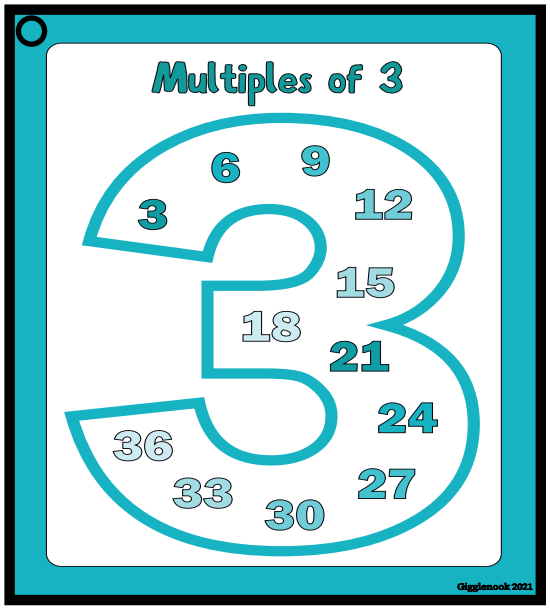
MULTIPLICATION GRID

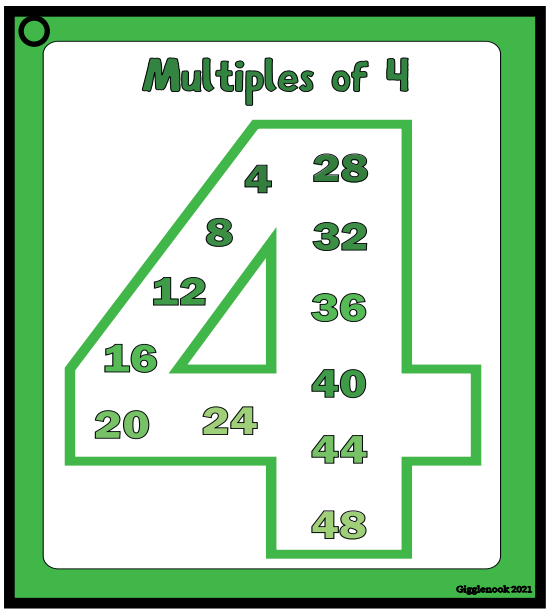
X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72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

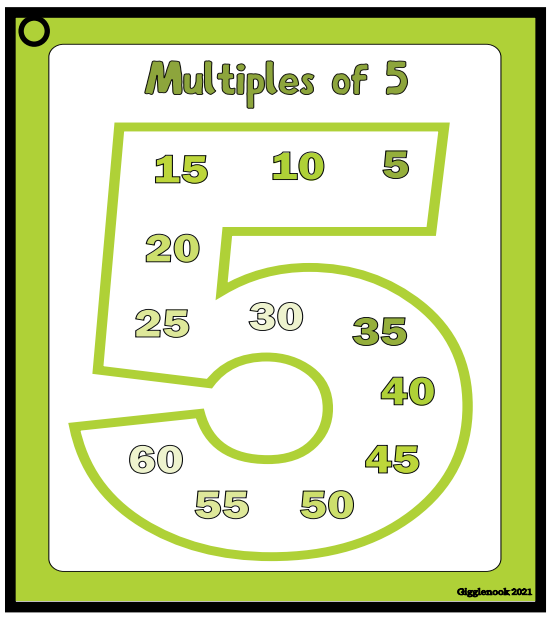
SKIP COUNTING STRIPS

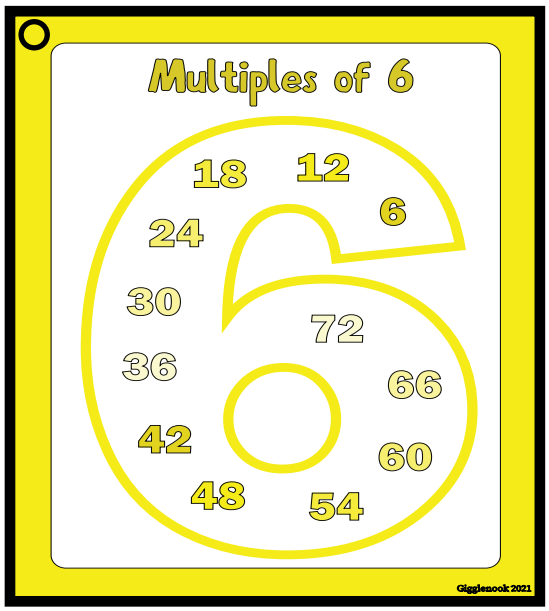
2s	3s	4s	5s	6s	7s	8s	9s	10s
2	3	4	5	6	7	8	9	10
4	6	8	10	12	14	16	18	20
6	9	12	15	18	21	24	27	30
8	12	16	20	24	28	32	36	40
10	15	20	25	30	35	40	45	50
12	18	24	30	36	42	48	54	60
14	21	28	35	42	49	56	63	70
16	24	32	40	48	56	64	72	80
18	27	36	45	54	63	72	81	90
20	30	40	50	60	70	80	90	100
22	33	44	55	66	77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


Multiples of 2
2
4
6
8
10
12
14
16
18
20
22
24
Giggienook 2021


Multiples of 3
3
6
9
12
15
18
21
24
27
30
33
36
Giggienook 2021


Multiples of 4
4
8
12
16
20
24
28
32
36
40
44
48
Giggienook 2021


Multiples of 5
5
10
15
20
25
30
35
40
45
50
55
60
Giggienook 2021


Multiples of 6
6
12
18
24
30
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42
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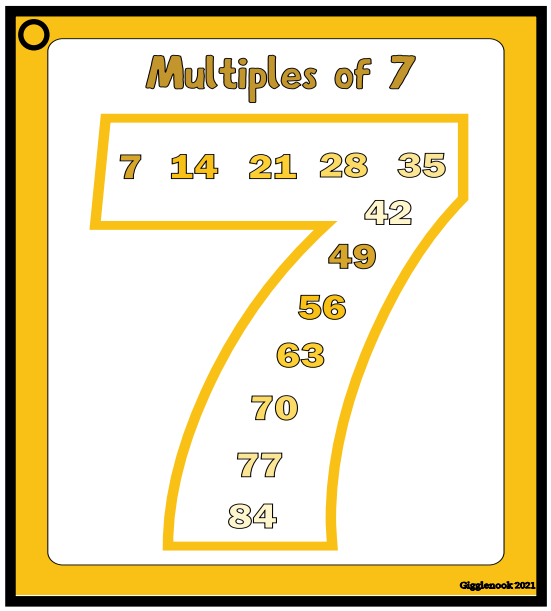
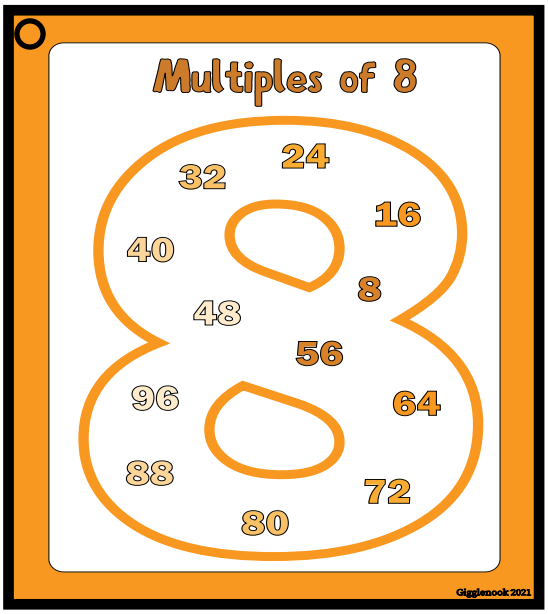
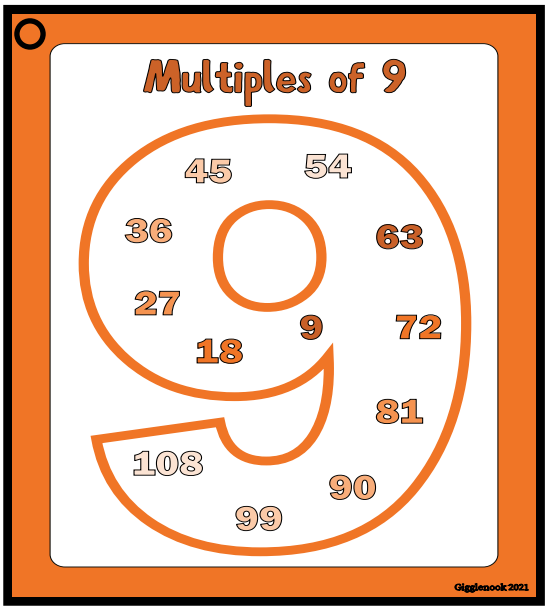
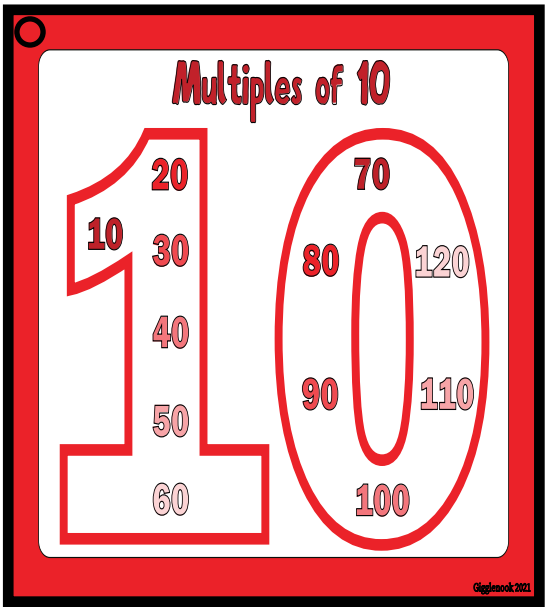
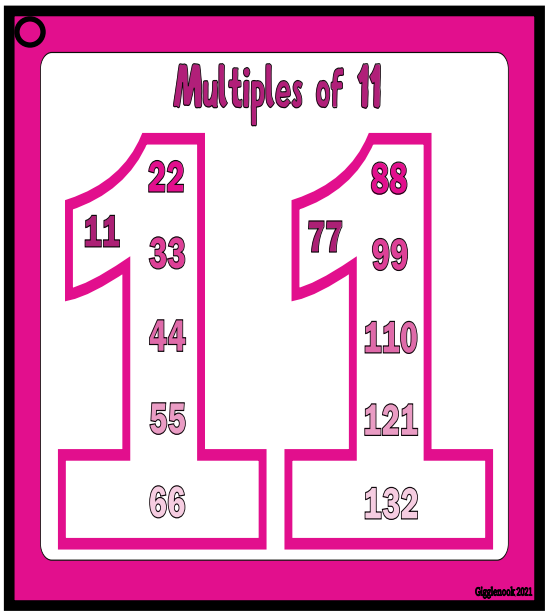
54
60
66
72
Giggienook 2021

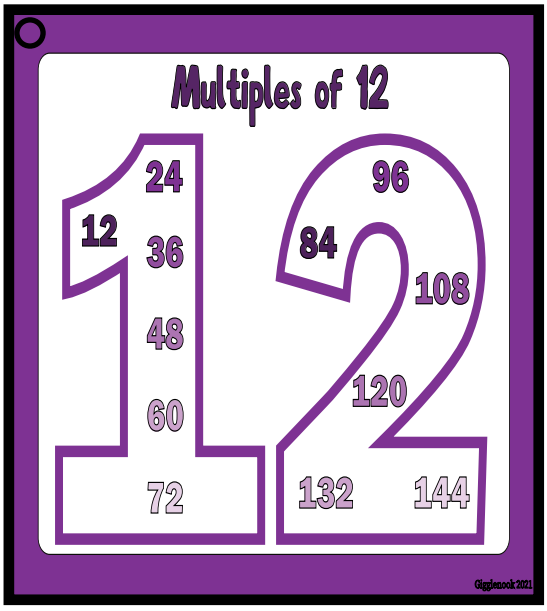

Multiples of 7
7
14
21
28
35
42
49
56
63
70
77
84
Giggienook 2021


Multiples of 8
24
32
16
40
8
48
56
96
64
88
72
80
Gigglenook 2021

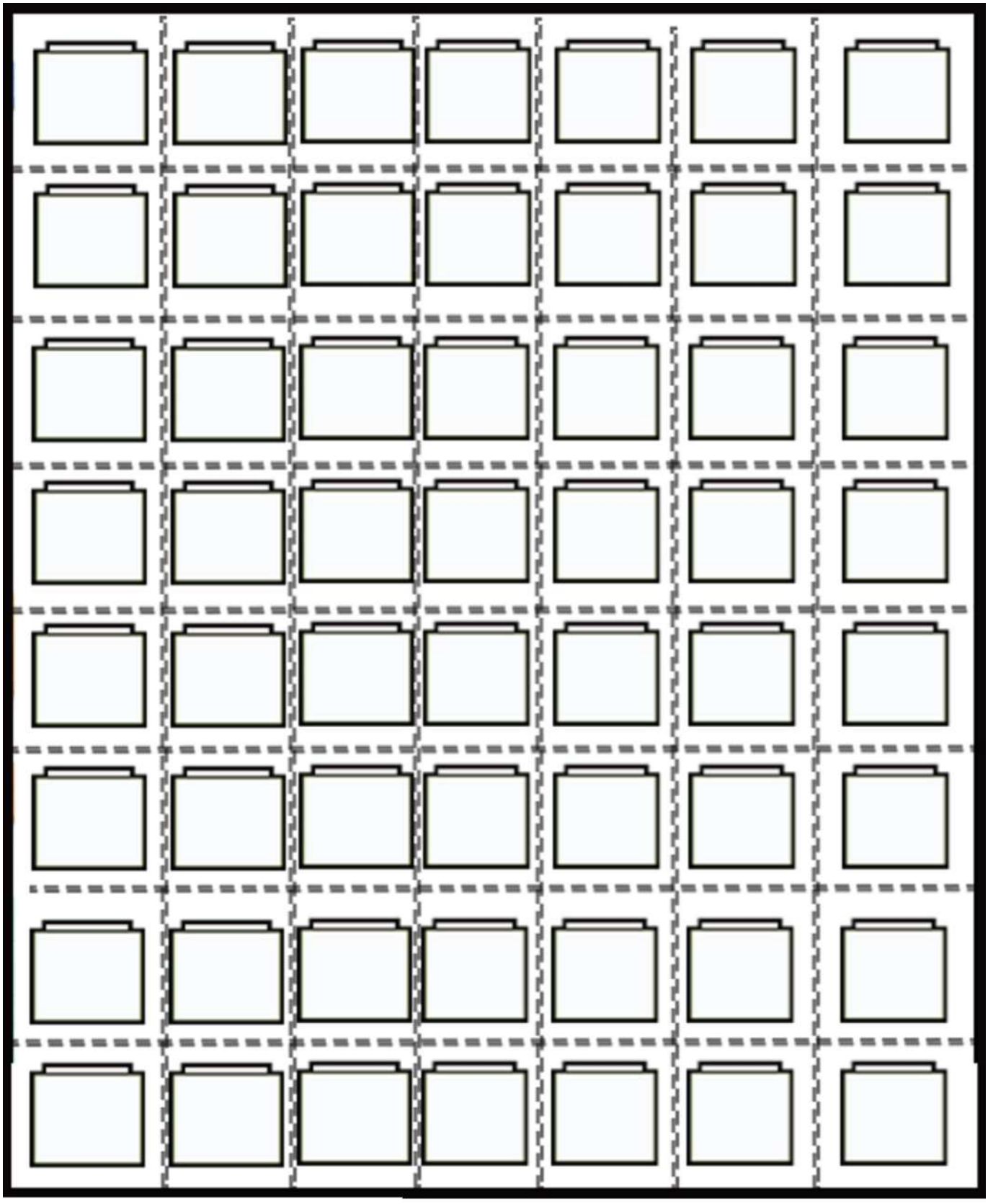

Multiples of 9
45
54
36
63
27
9
72
18
81
108
90
99
Gigglenook 2021


Multiples of 10
20
10
30
40
50
60
70
80
120
90
110
100
Gigglenook 2021

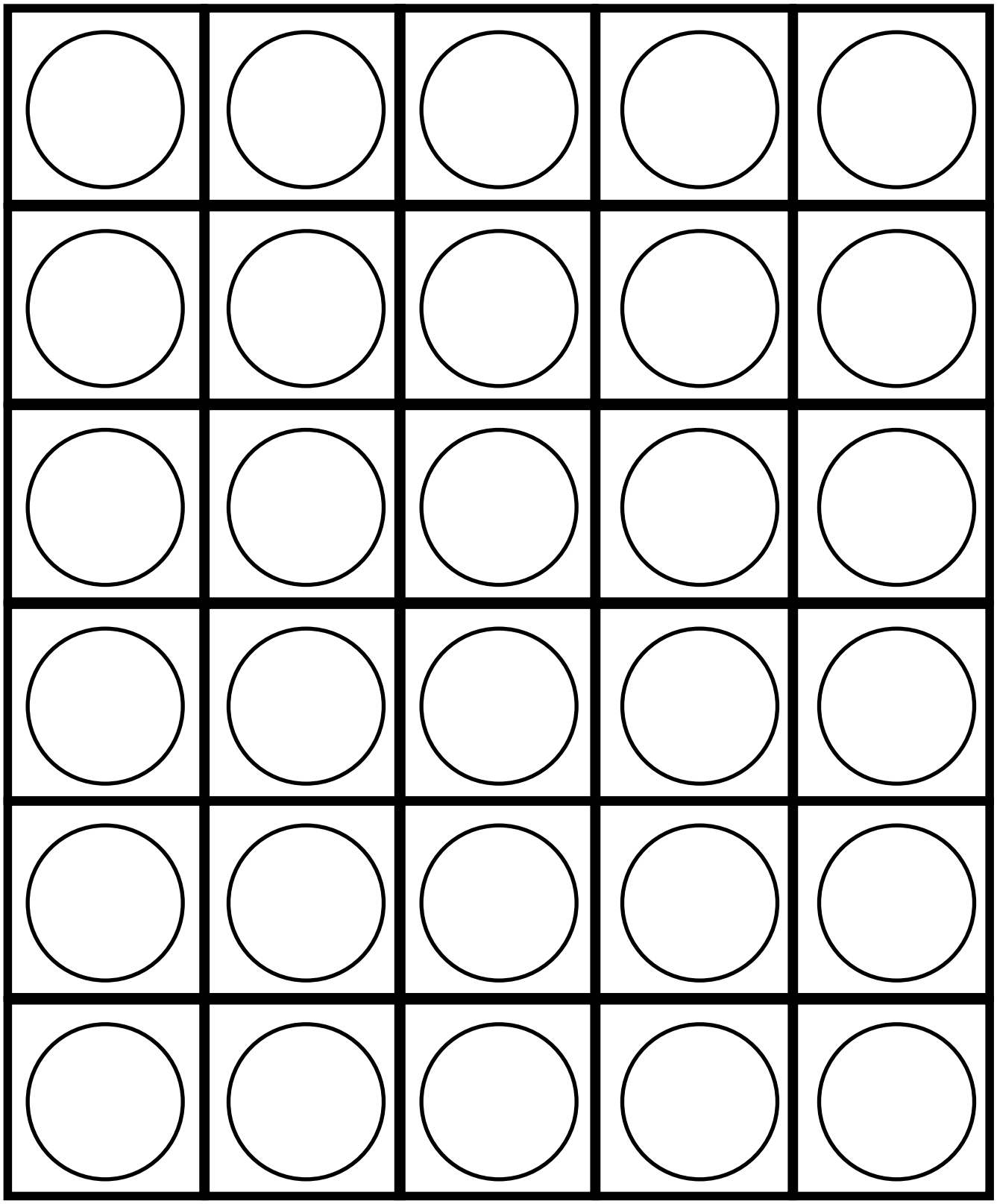

Multiples of 11
22
11
33
44
55
66
88
77
99
110
121
132
Gigglenook 2021

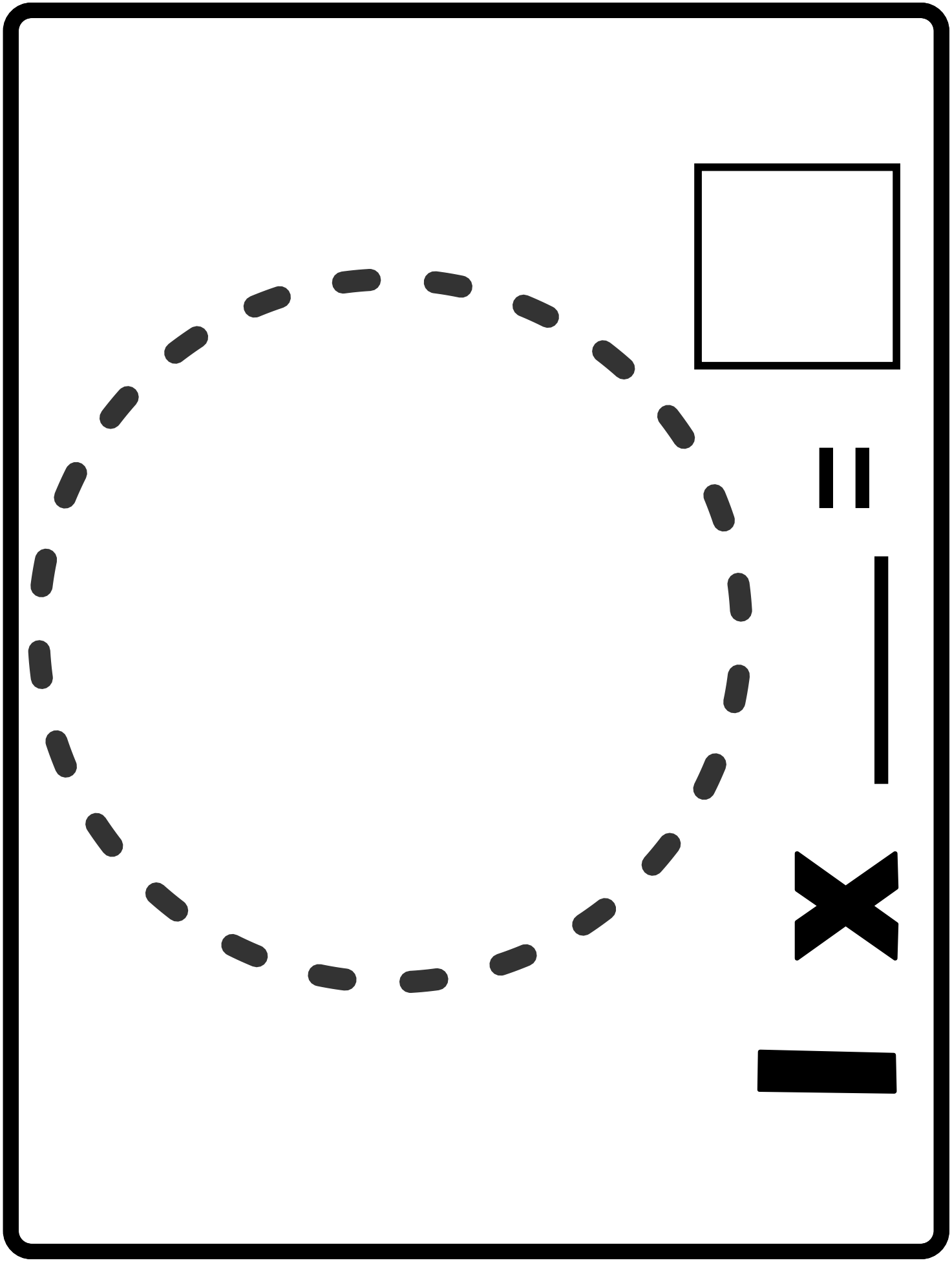

Multiples of 12
24
12
36
48
60
72
96
84
108
120
132
144
Gigglenook 2021

Cube Counters

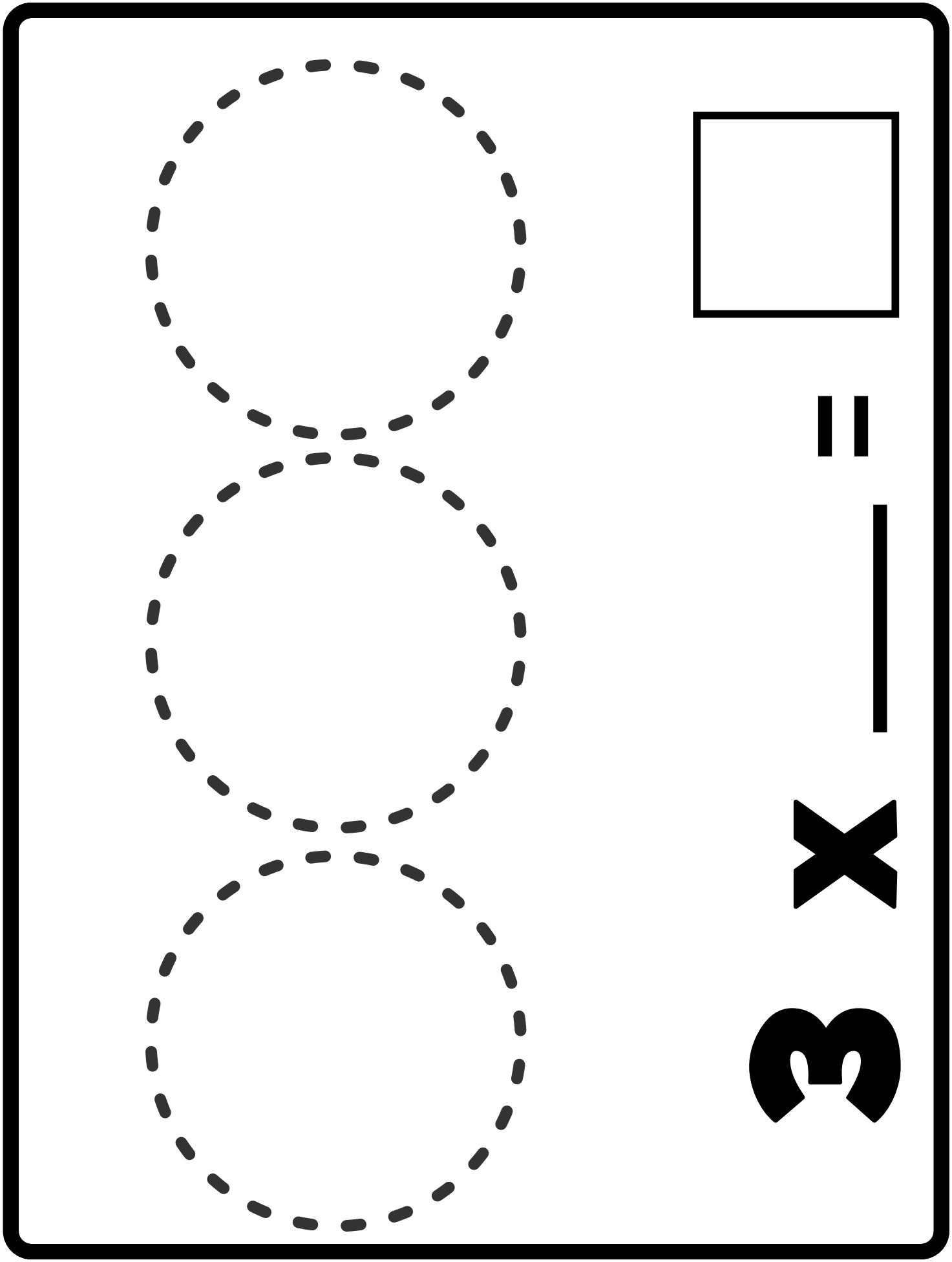


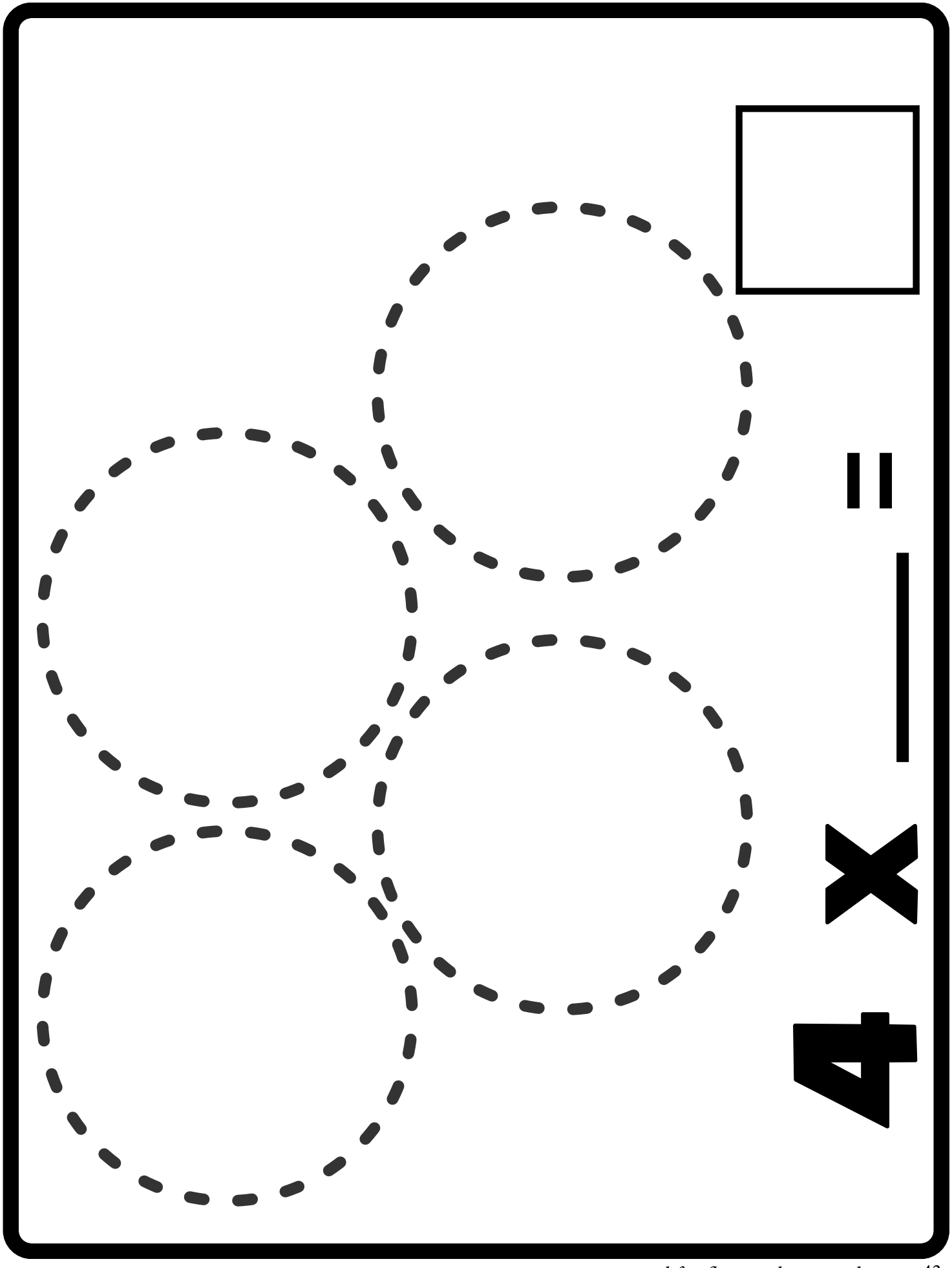
Circle Counters

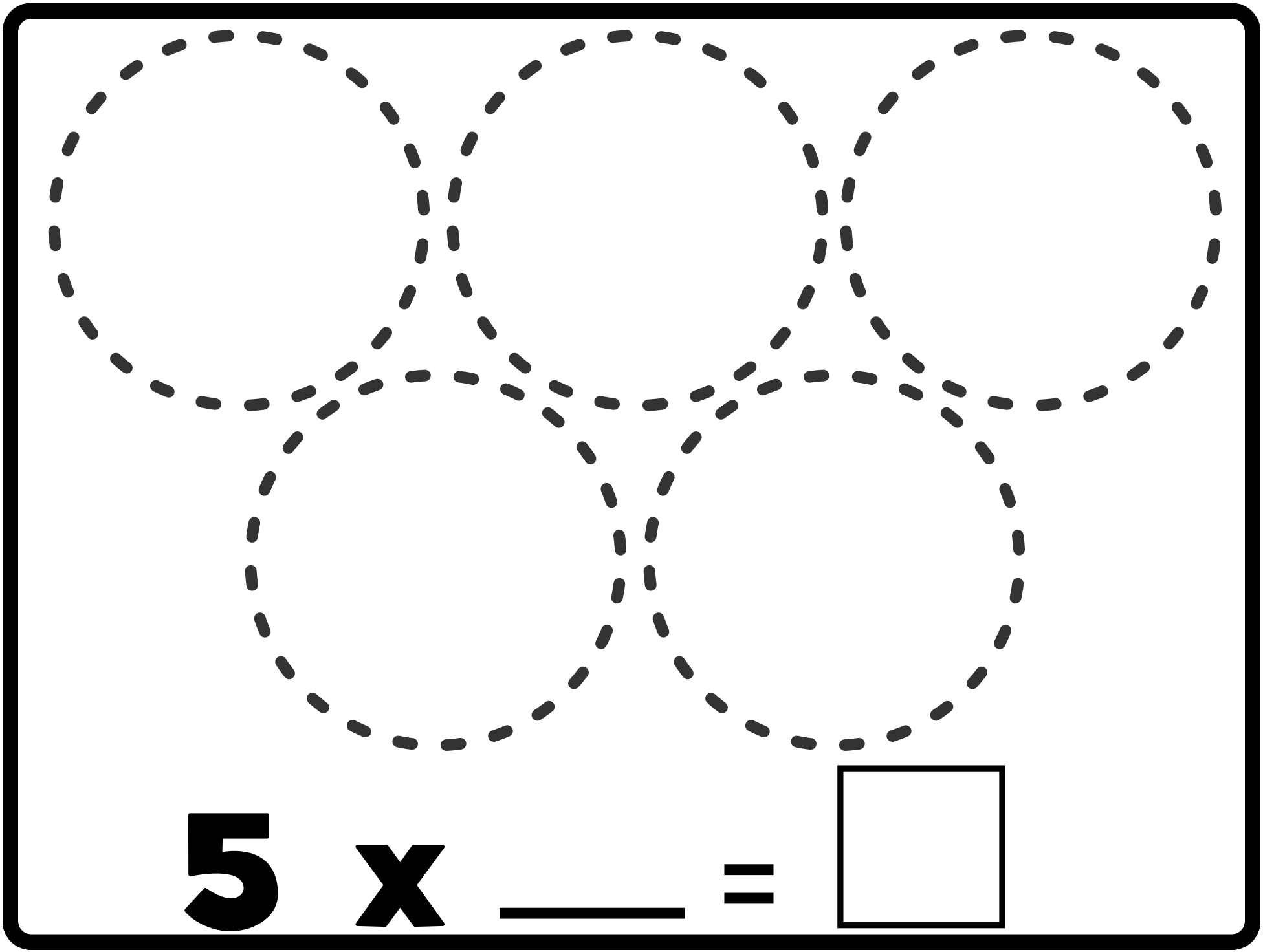




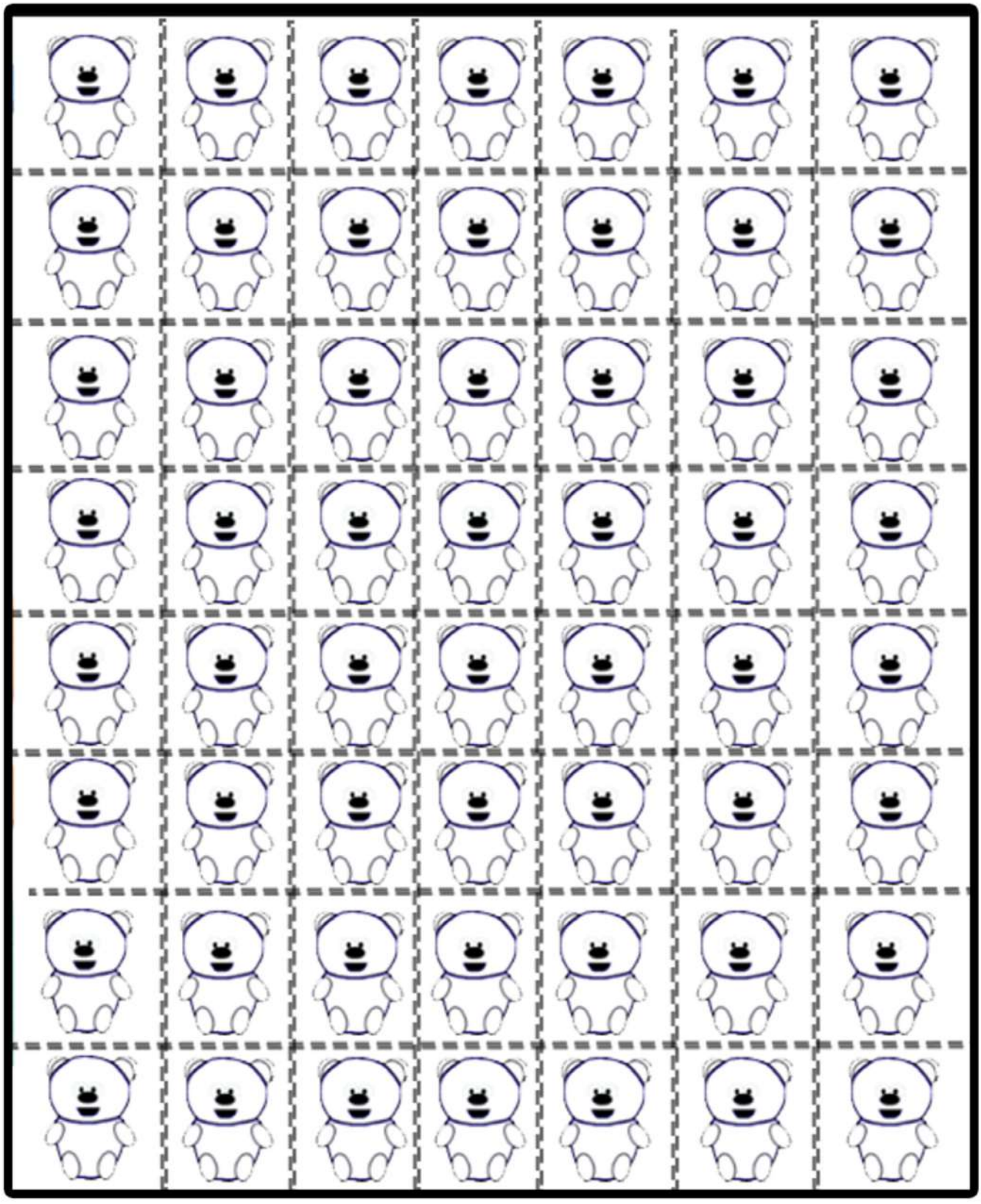
2 x

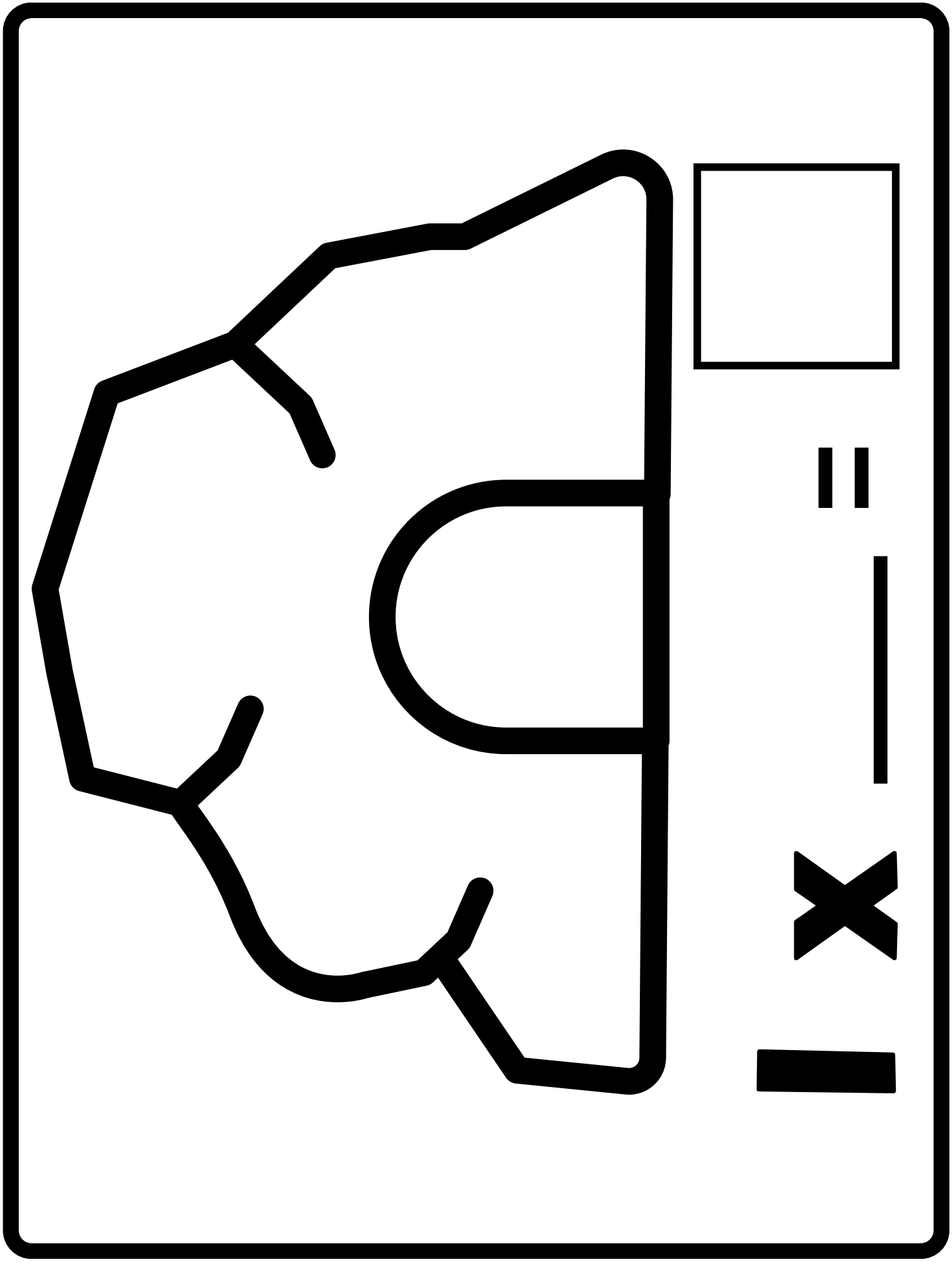

3 x 1 =


4


5 x ___ = □

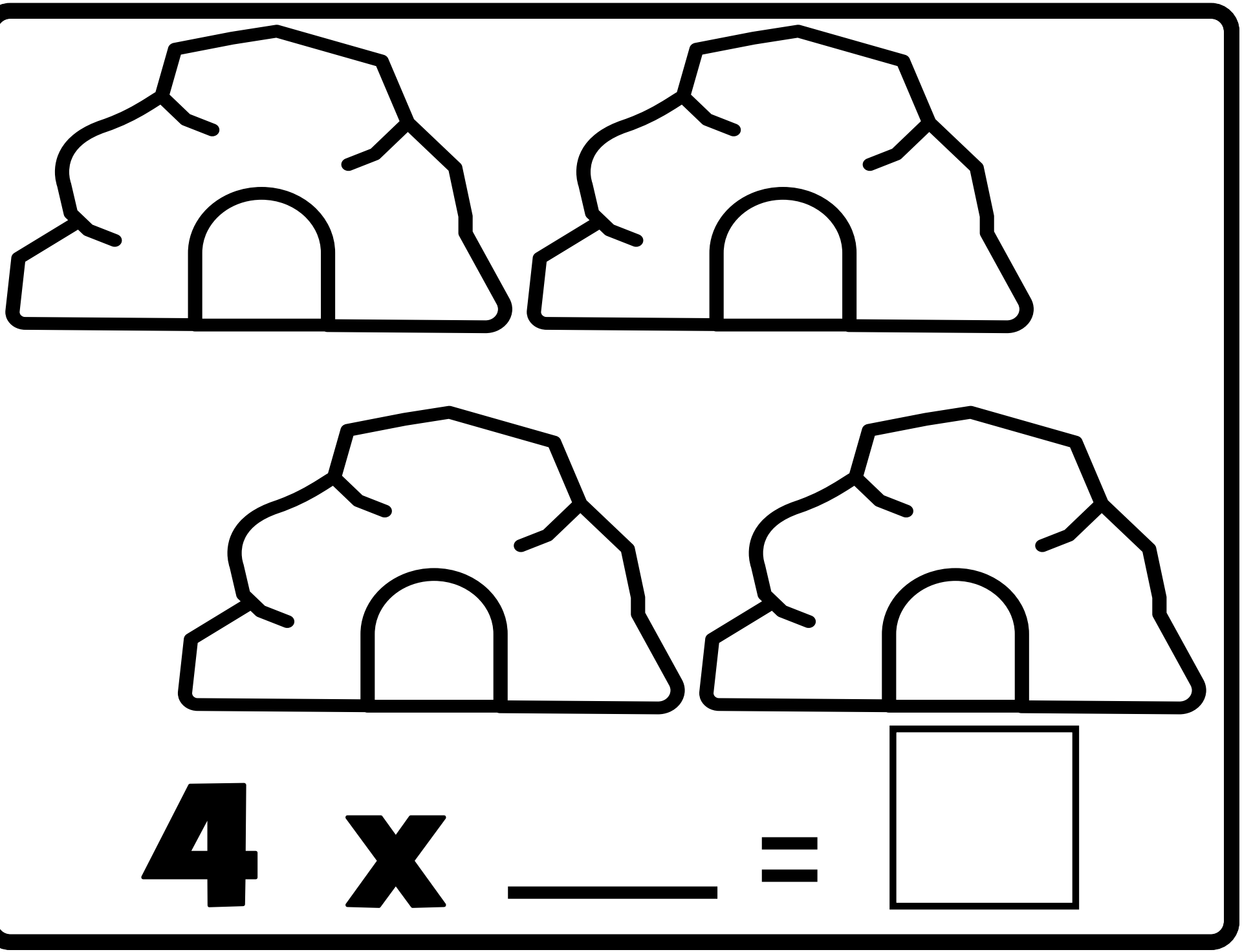
Bear Counters





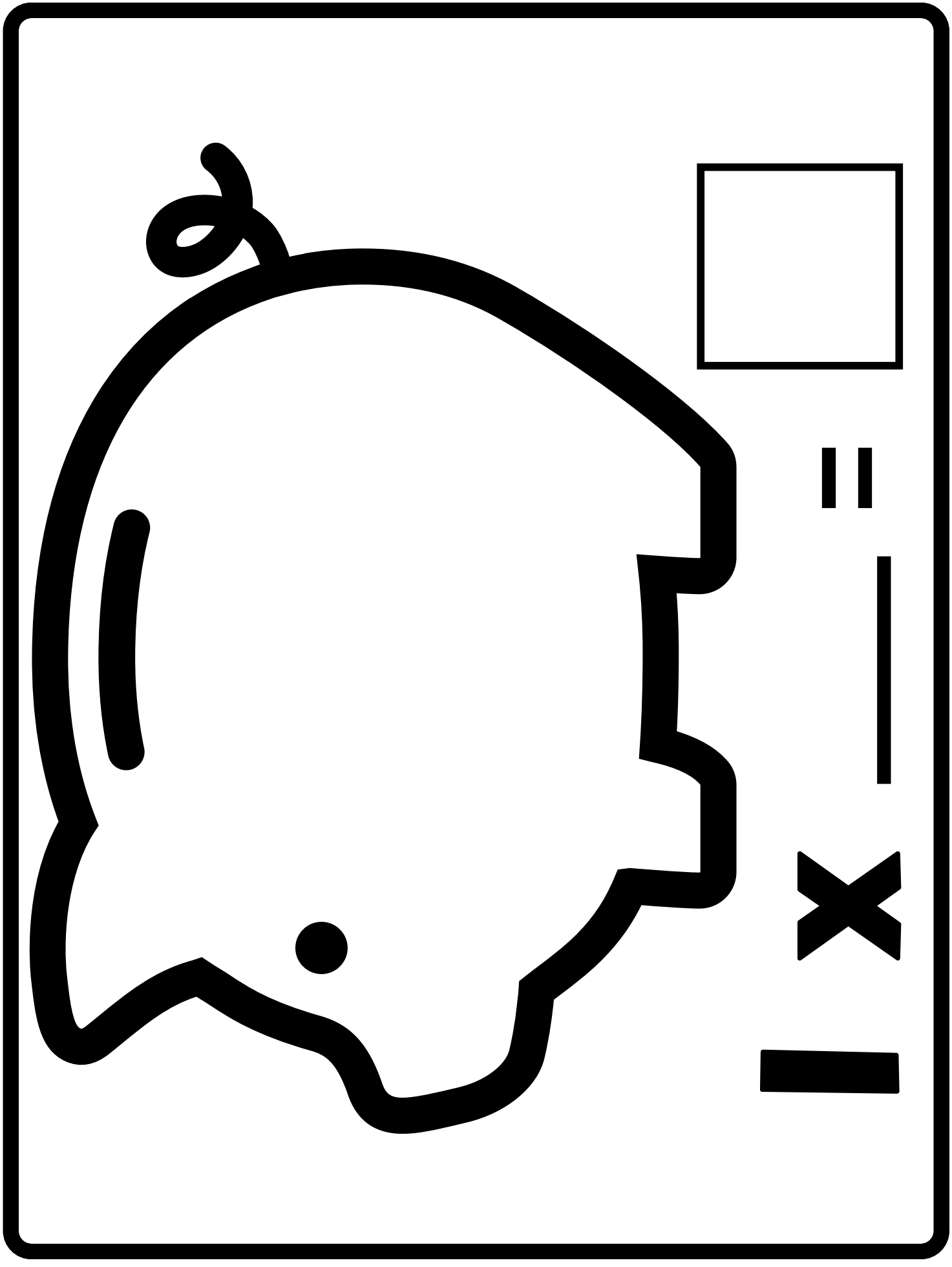
2 x _ = □

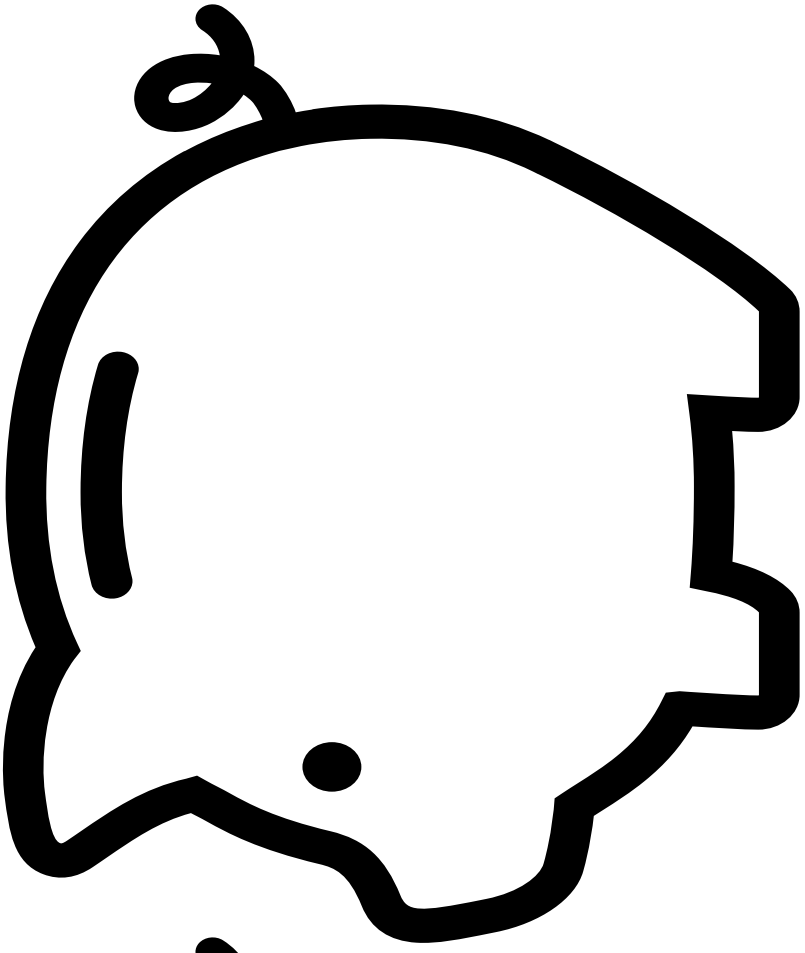
3 x _ = □

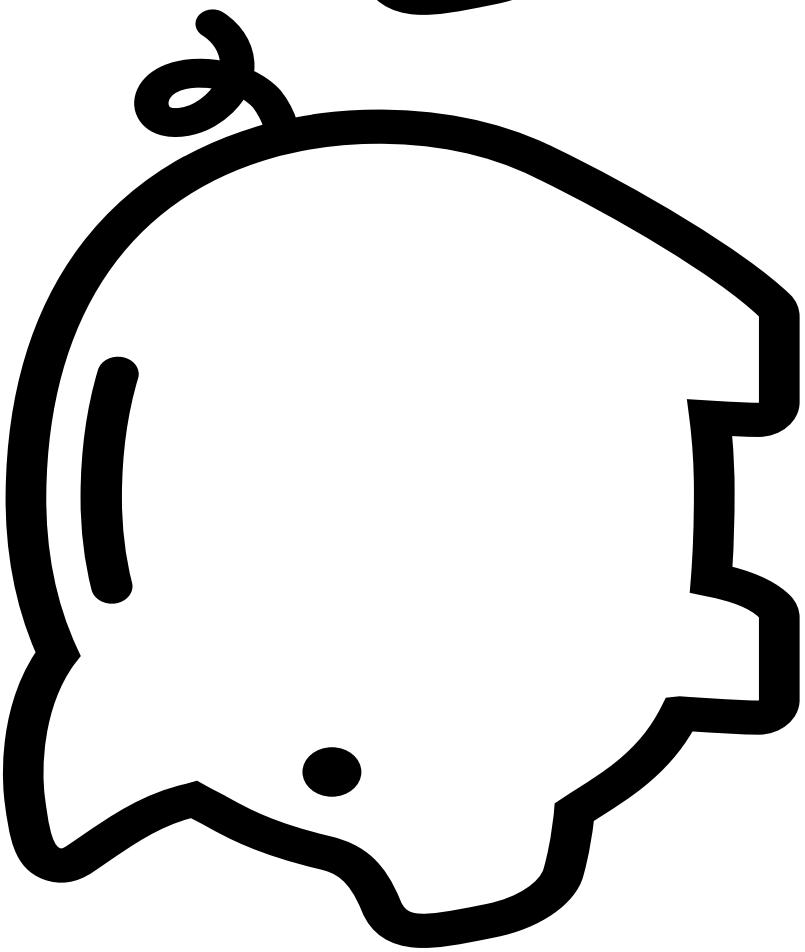

4 x ___ =

5 x ___ = □

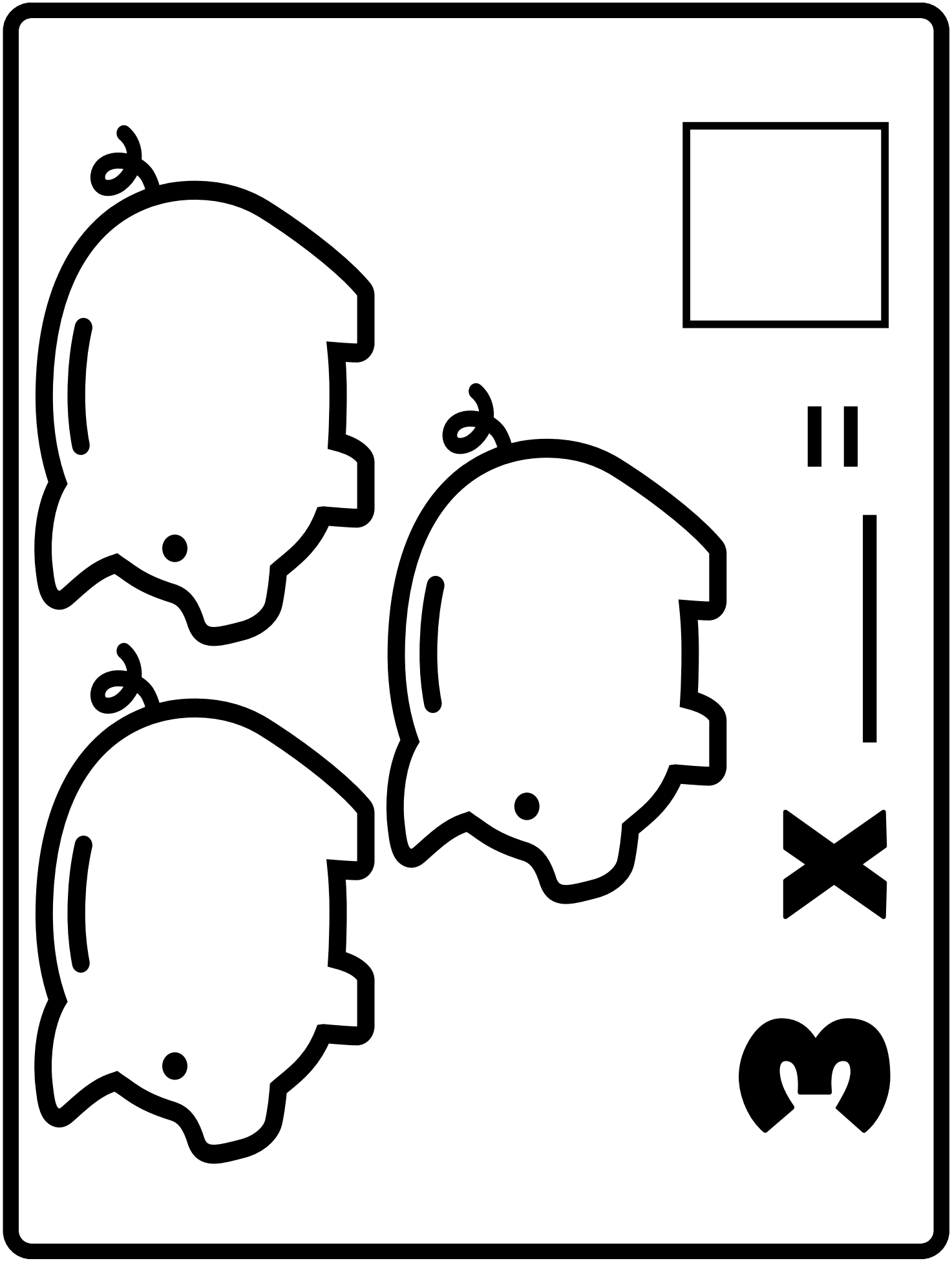
PENNY COUNTERS

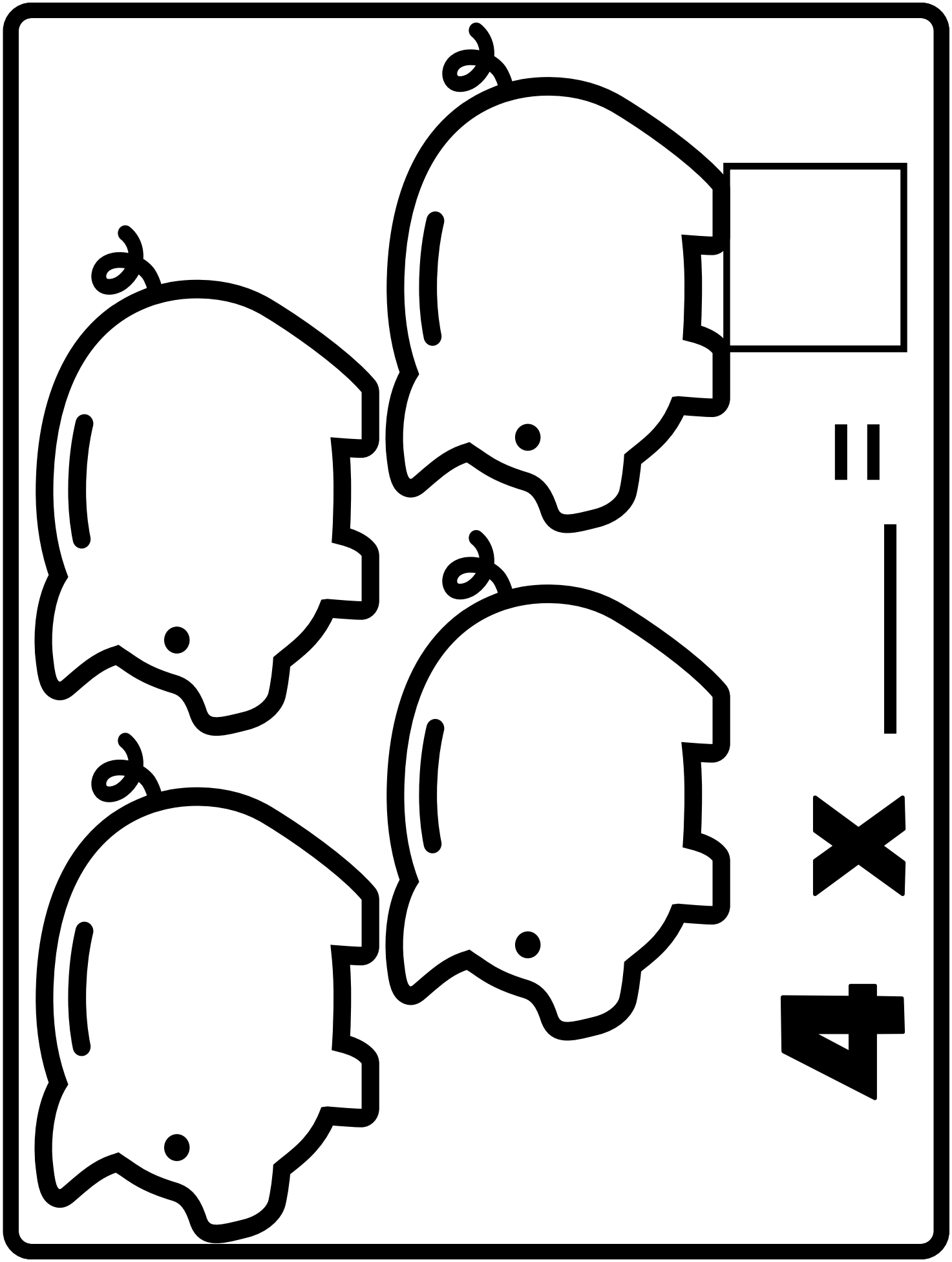


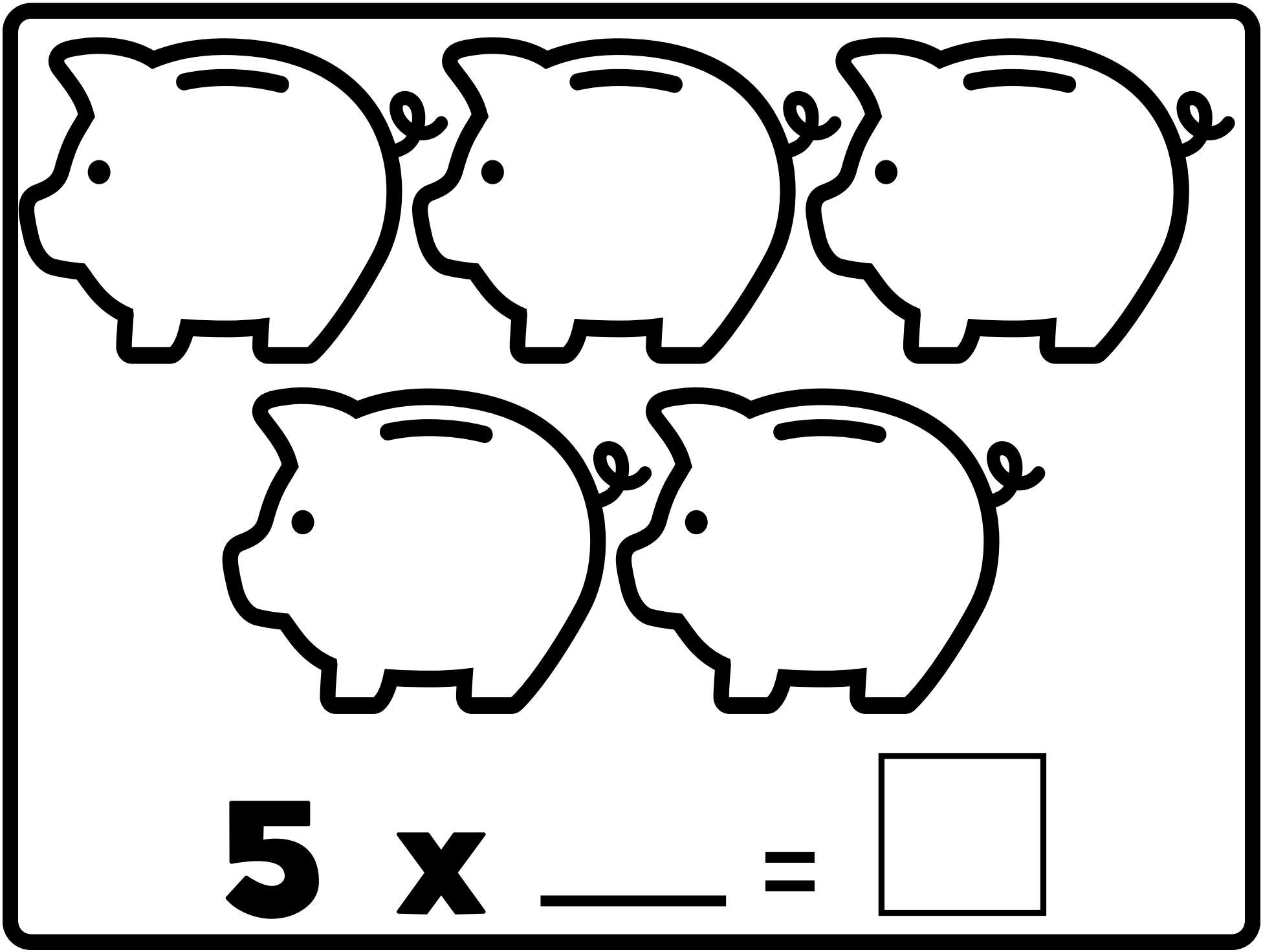




$$\square = \frac{}{} \times 2$$


3

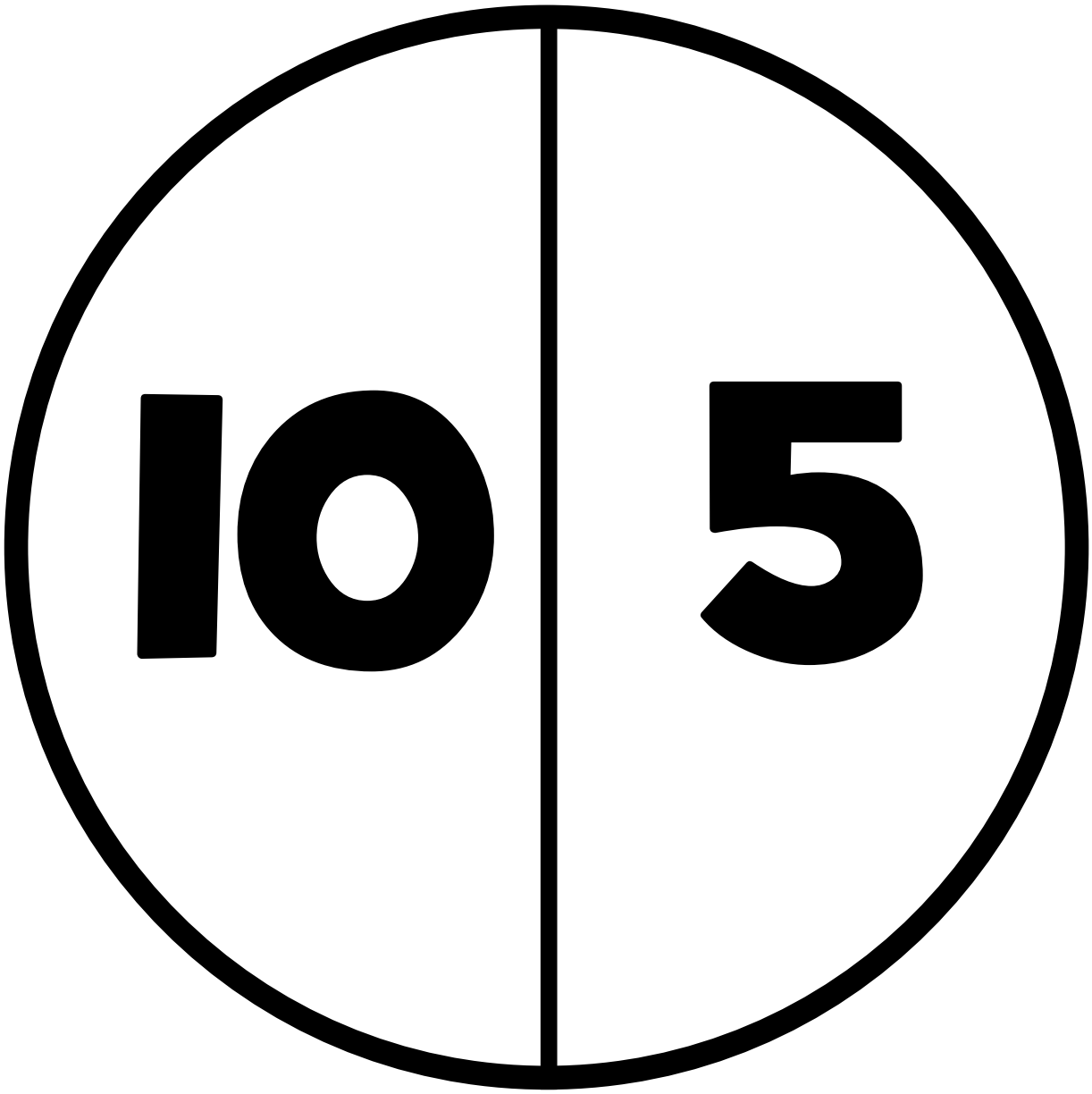

=
x
4



5 x ___ = ☐

SPINNER

Instructions: Students put numbers that they want to practice multiplying.

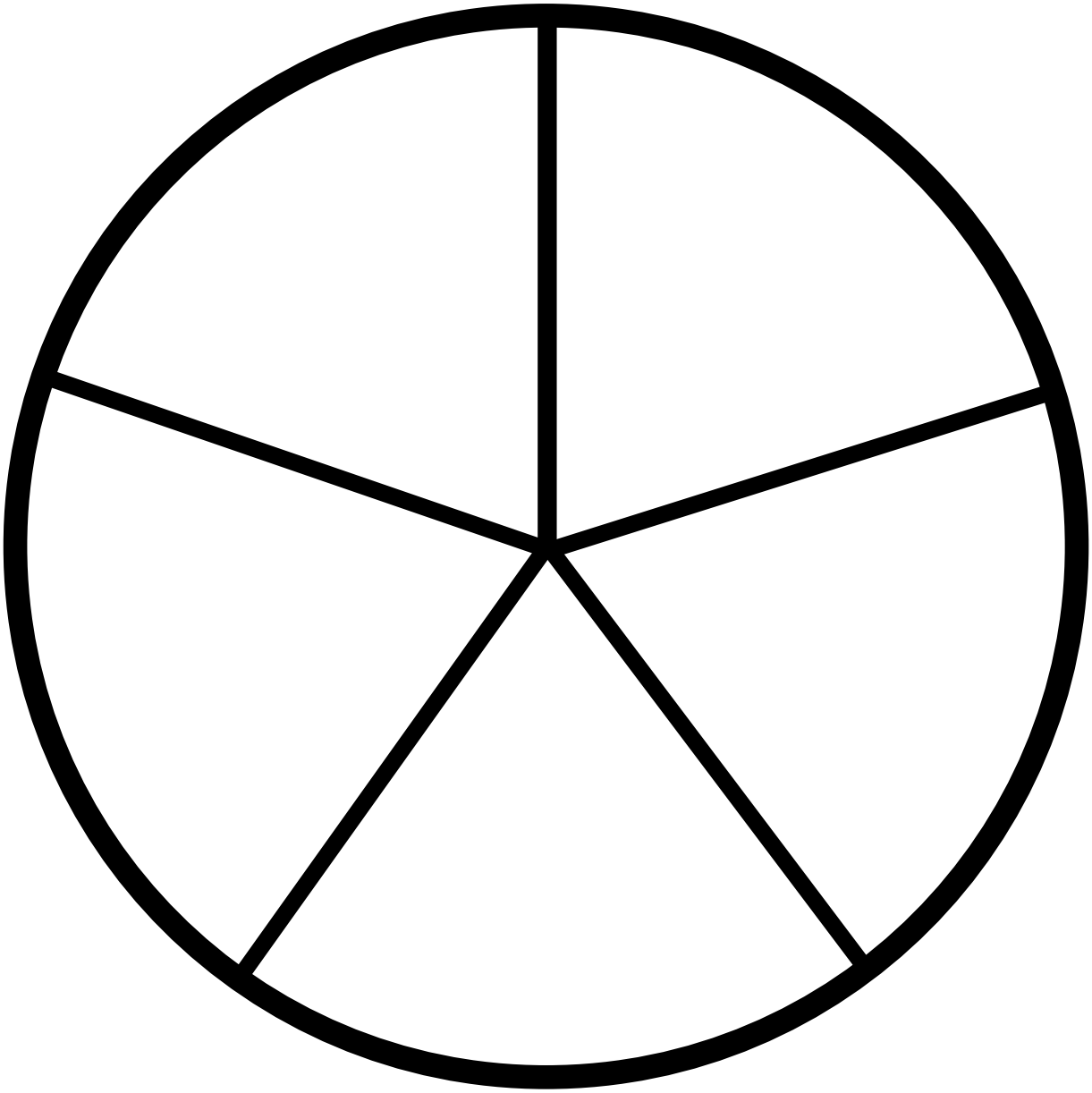


SPINNER

Instructions: Students put numbers that they want to practice multiplying.

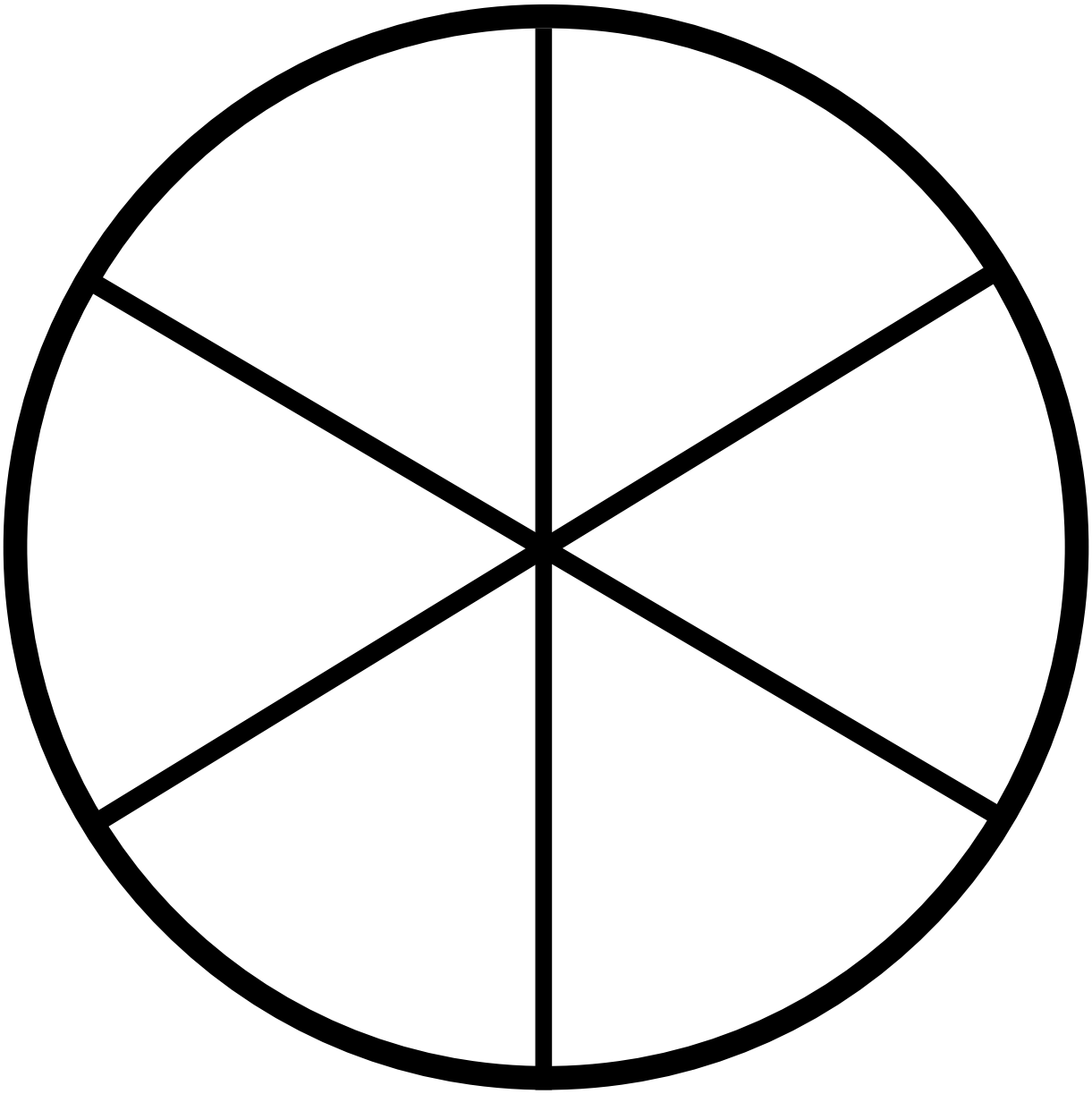
SPINNER

Instructions: Students put numbers that they want to practice multiplying.



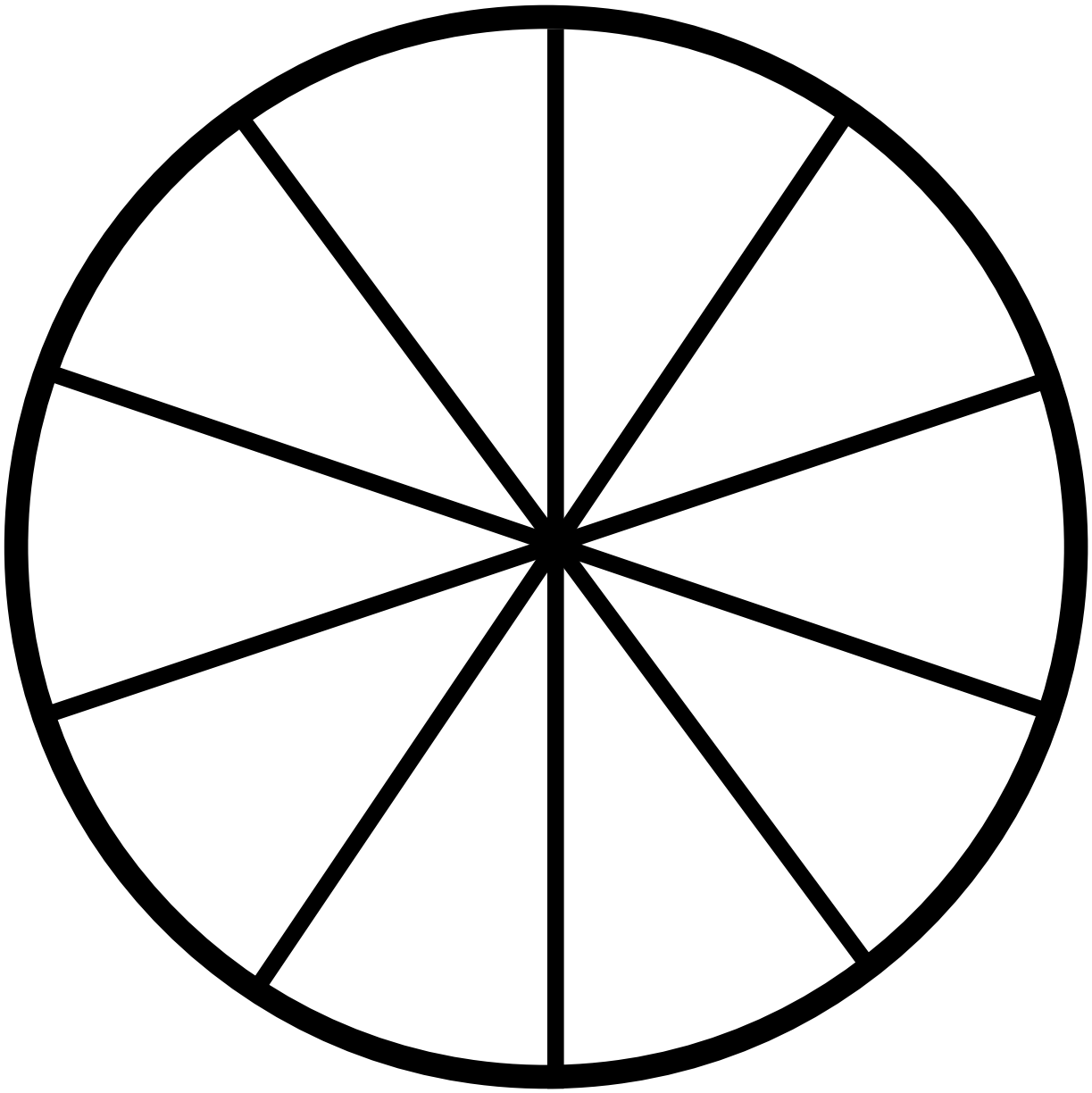
SPINNER

Instructions: Students put numbers that they want to practice multiplying.

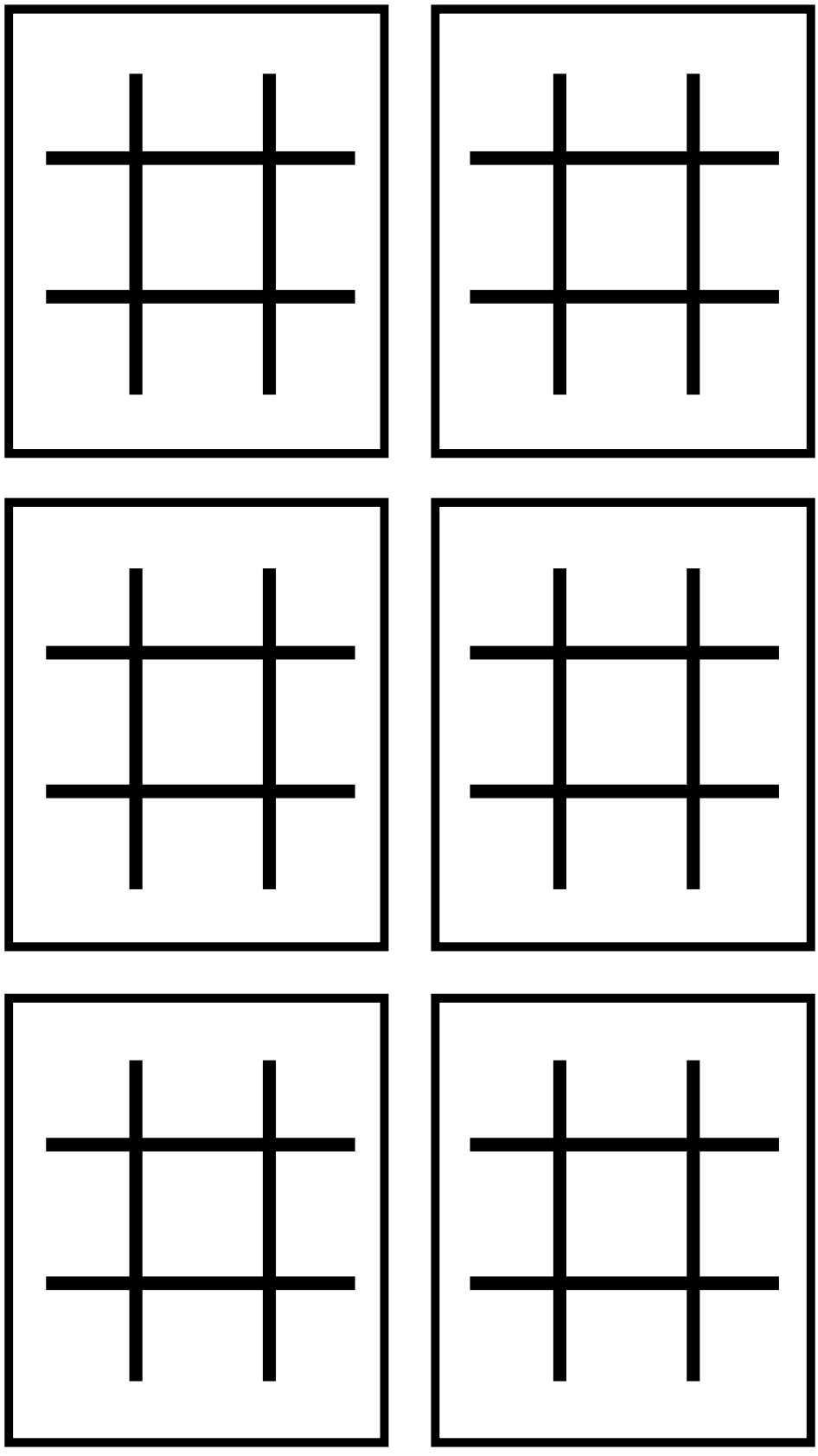


SPINNER

Instructions: Students put numbers that they want to practice multiplying.

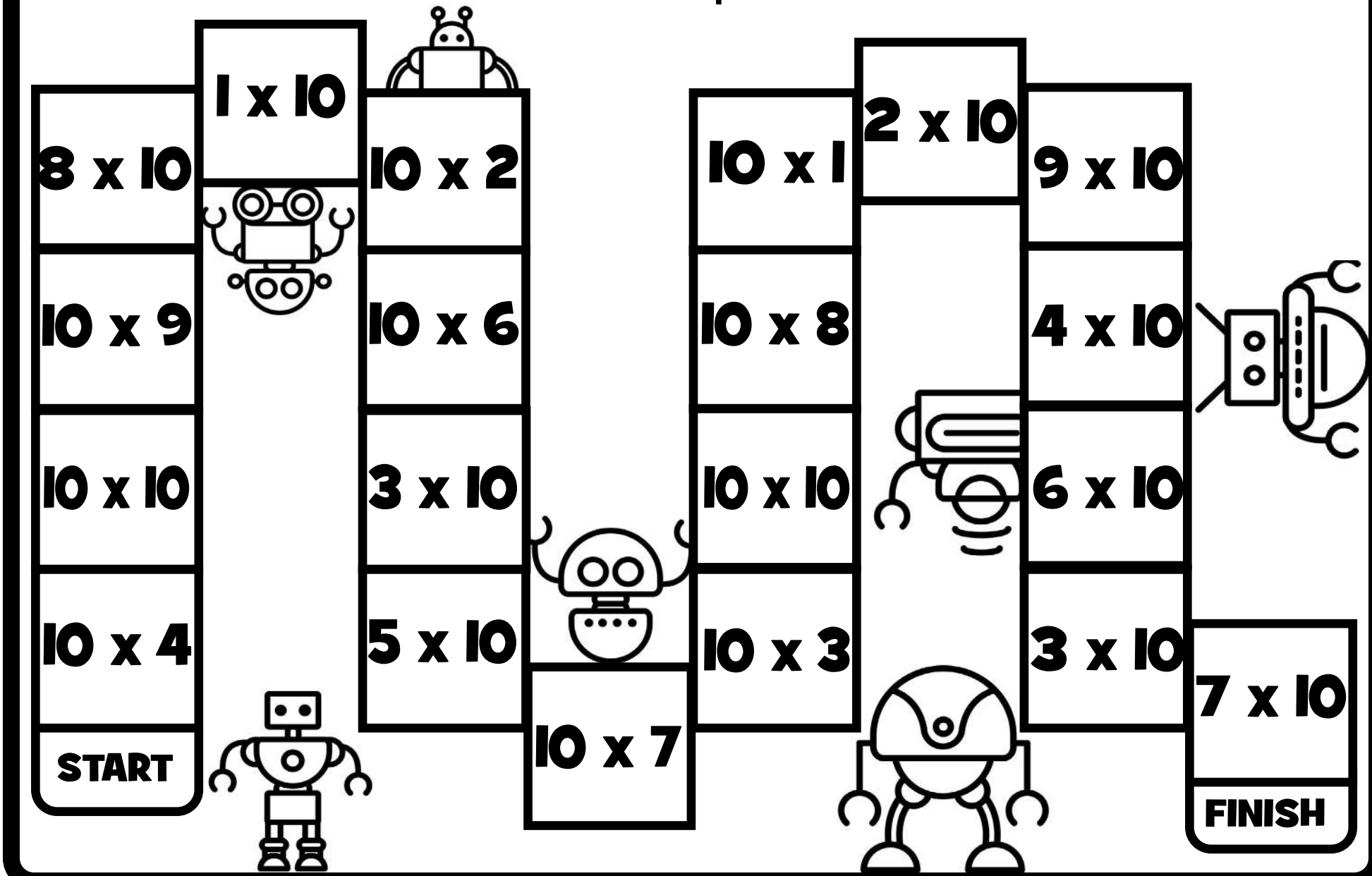


Tic Tac Toe



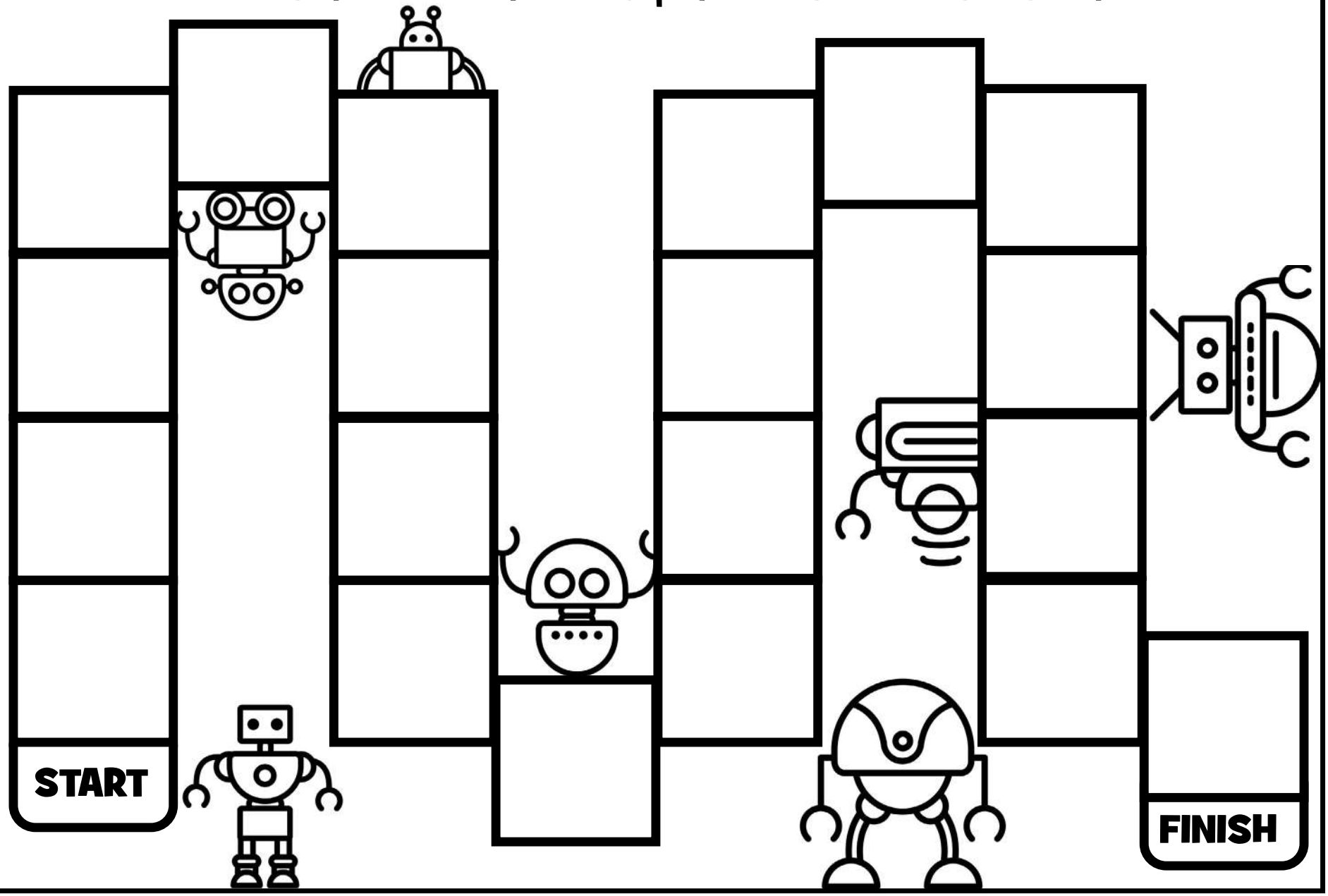
MULTIPLYING BY 10
MULTIPLICATION BOARD GAME

Instructions: Roll the dice. Move and solve the problem. Whoever reaches the end first wins!

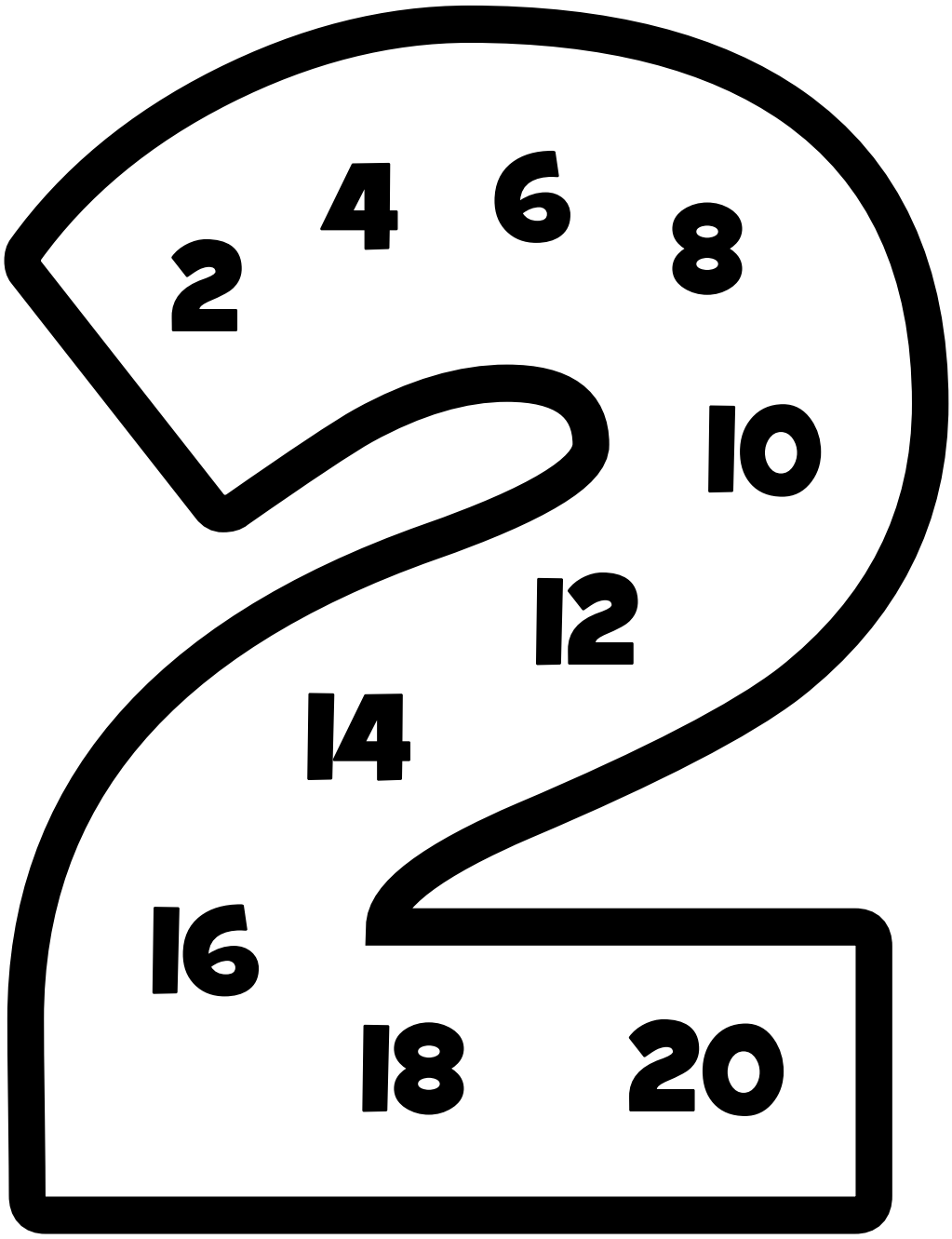


MULTIPLYING BY _____
MULTIPLICATION BOARD GAME

Instructions: Roll the dice. Move and solve the problem. Whoever reaches the end first wins!



Multiples of 2



Skip Counting

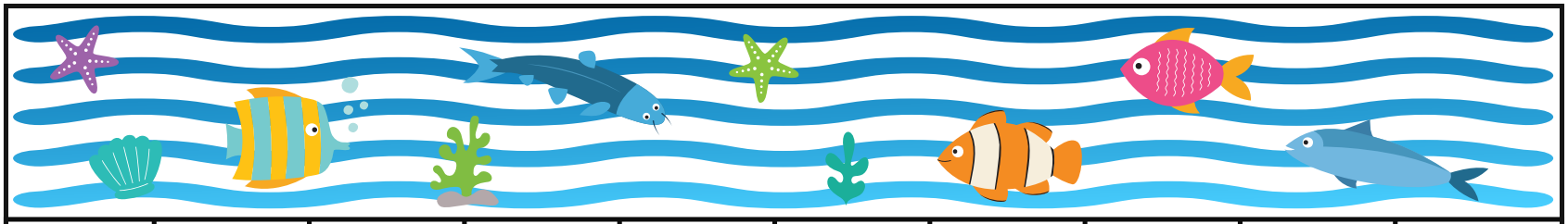
2	4	6	8	10	12	14	16	18	20

3	6	9	12	15	18	21	24	27	30

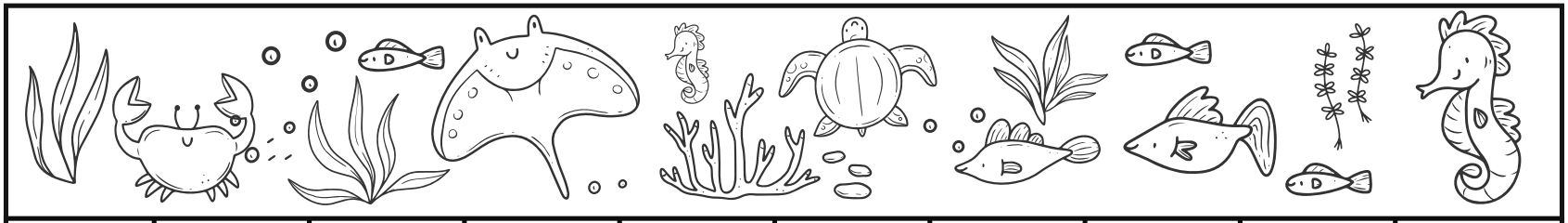
5	10	15	20	25	30	35	40	45	50

10	20	30	40	50	60	70	80	90	100

Skip Counting by 2's



2	4	6	8	10	12	14	16	18	20



2	4	6	8	10	12	14	16	18	20

Skip Counting

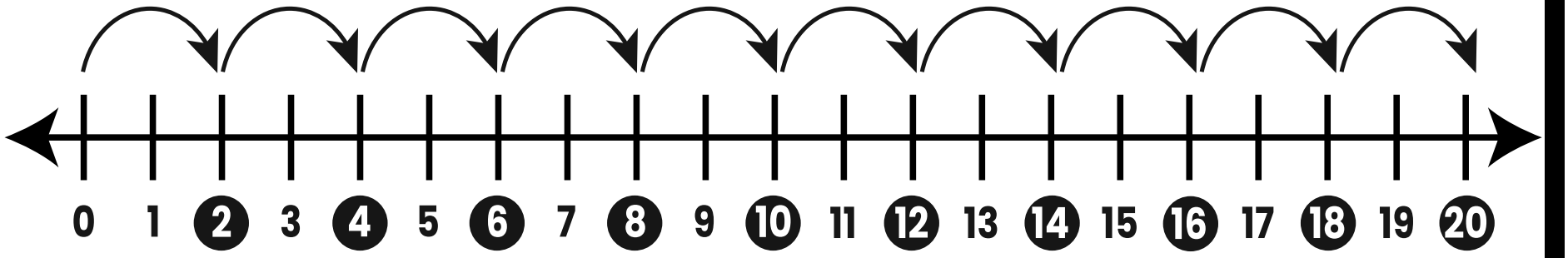
2	4	6	8	10	12	14	16	18	20

3	6	9	12	15	18	21	24	27	30

5	10	15	20	25	30	35	40	45	50

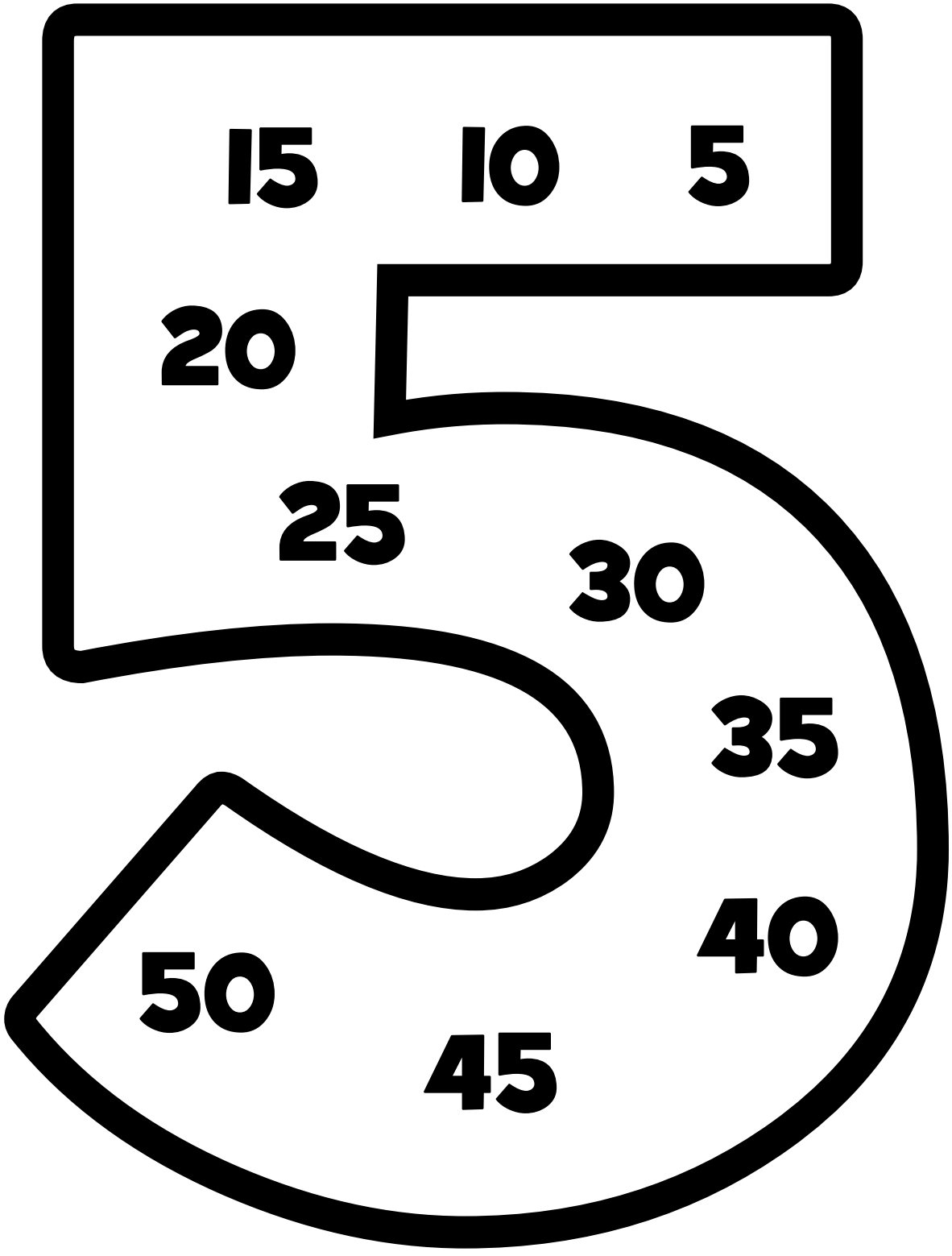
10	20	30	40	50	60	70	80	90	100

SKIP COUNTING BY 2

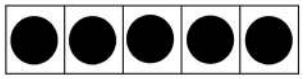
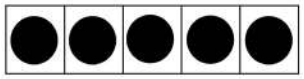
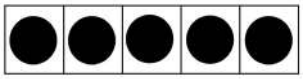
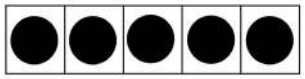
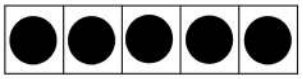
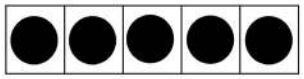
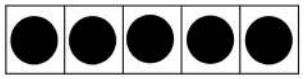
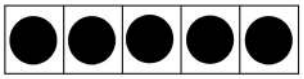
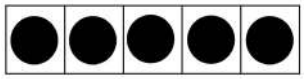
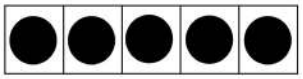
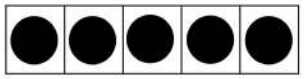
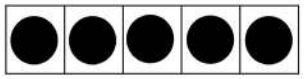
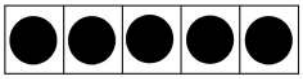
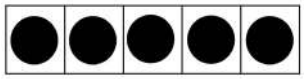
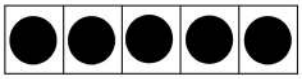


Jump every 2nd number.

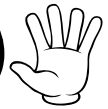
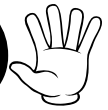
Multiples of 5



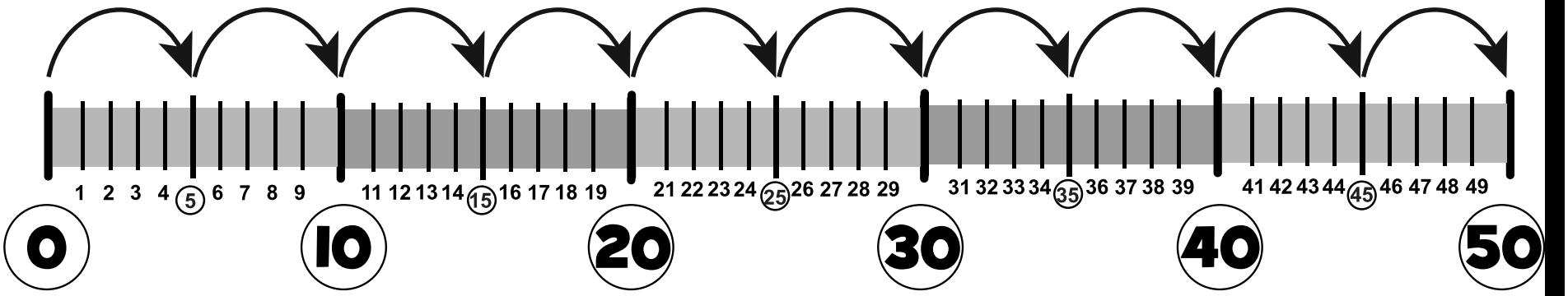
SKIP COUNTING BY 5

5	10	15	20	25
				
30	35	40	45	50
				
55	60	65	70	75
				
80	85	90	95	100
				

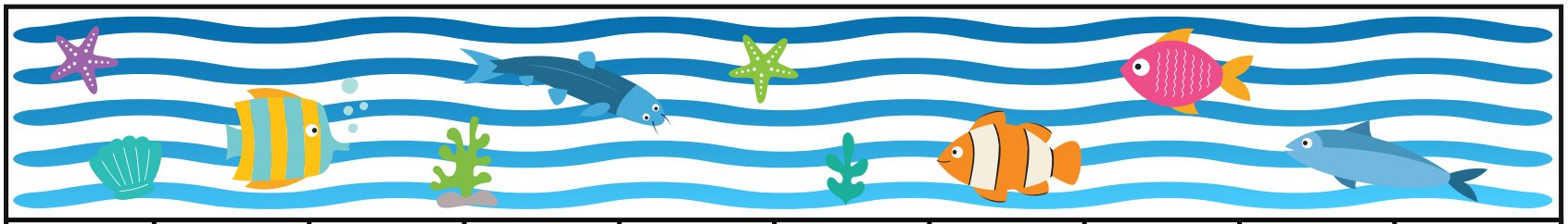
SKIP COUNTING BY 5

5 	10 	15 	20 	25 
30 	35 	40 	45 	50 
55 	60 	65 	70 	75 
80 	85 	90 	95 	100 

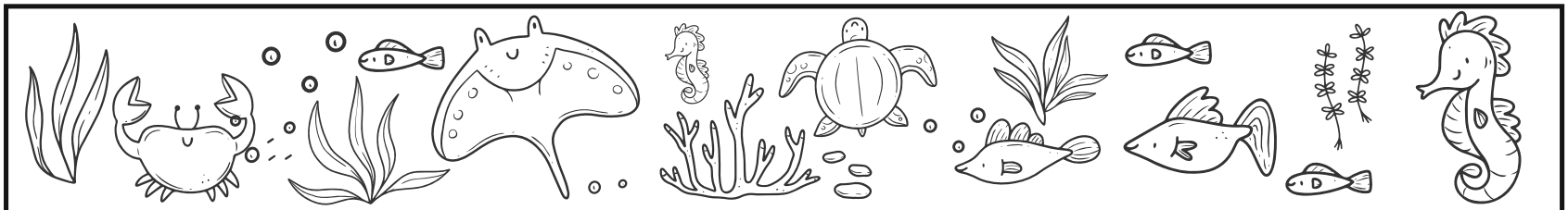
SKIP COUNTING BY 5



Skip Counting by 5's

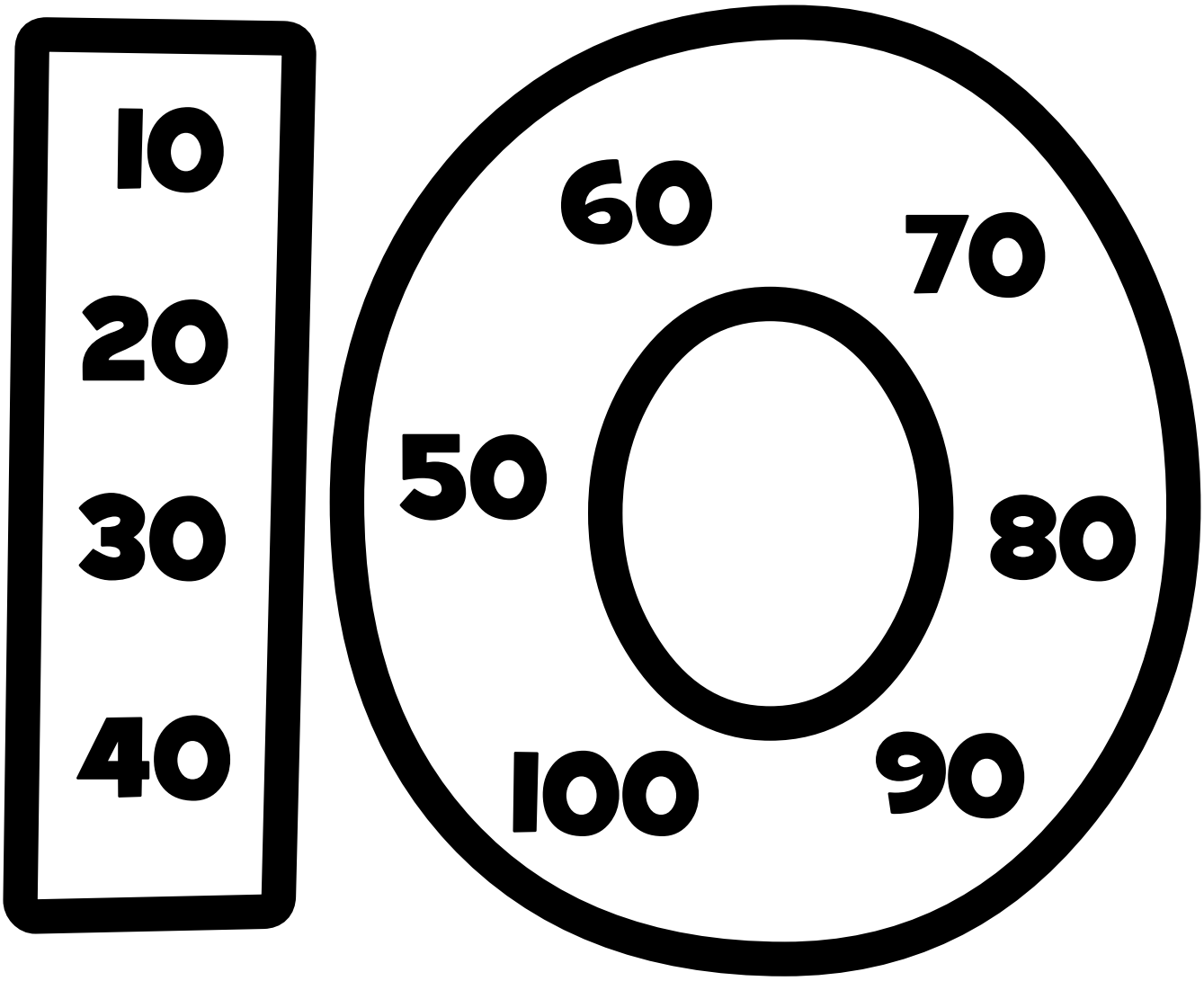


5	10	15	20	25	30	35	40	45	50

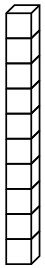


5	10	15	20	25	30	35	40	45	50

Multiples of 10



SKIP COUNTING BY 10

10 

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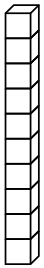
30 

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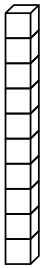
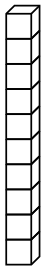
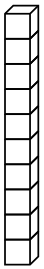
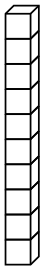
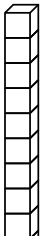
50 

60 

70 

80 

90 

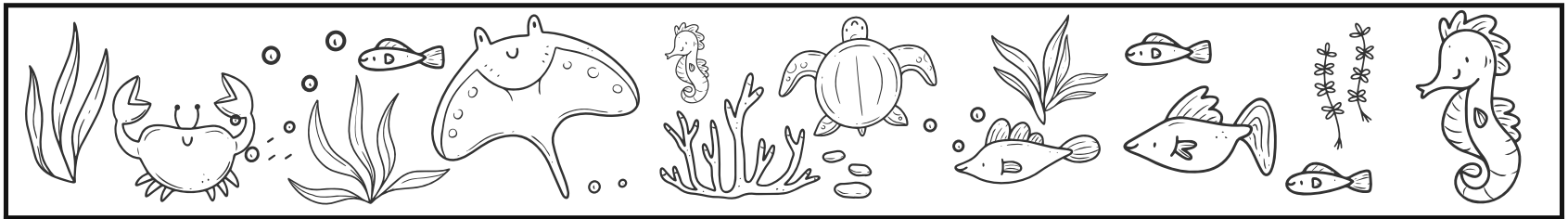
100 

I CAN SKIP COUNT BY 10s

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
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Skip Counting by 10's

10	20	30	40	50	60	70	80	90	100

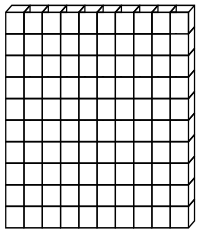


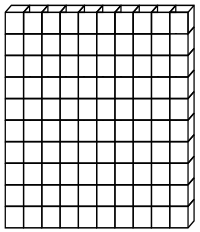
10	20	30	40	50	60	70	80	90	100

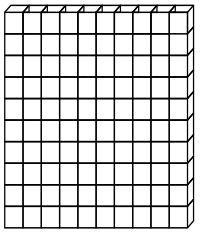
SKIP COUTING BY 10s TO 100

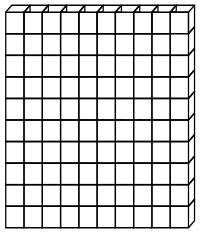
10	ten
20	twenty
30	thirty
40	forty
50	fifty
60	sixty
70	seventy
80	eighty
90	ninety
100	one hundred

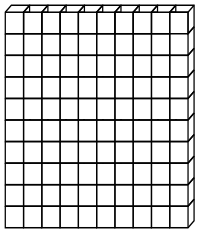
SKIP COUNTING BY 100

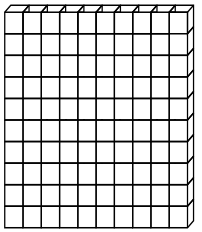
100 

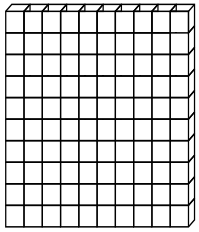
200 

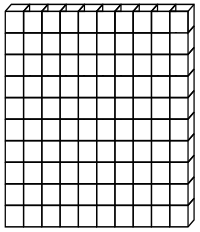
300 

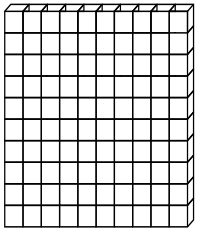
400 

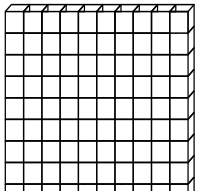
500 

600 

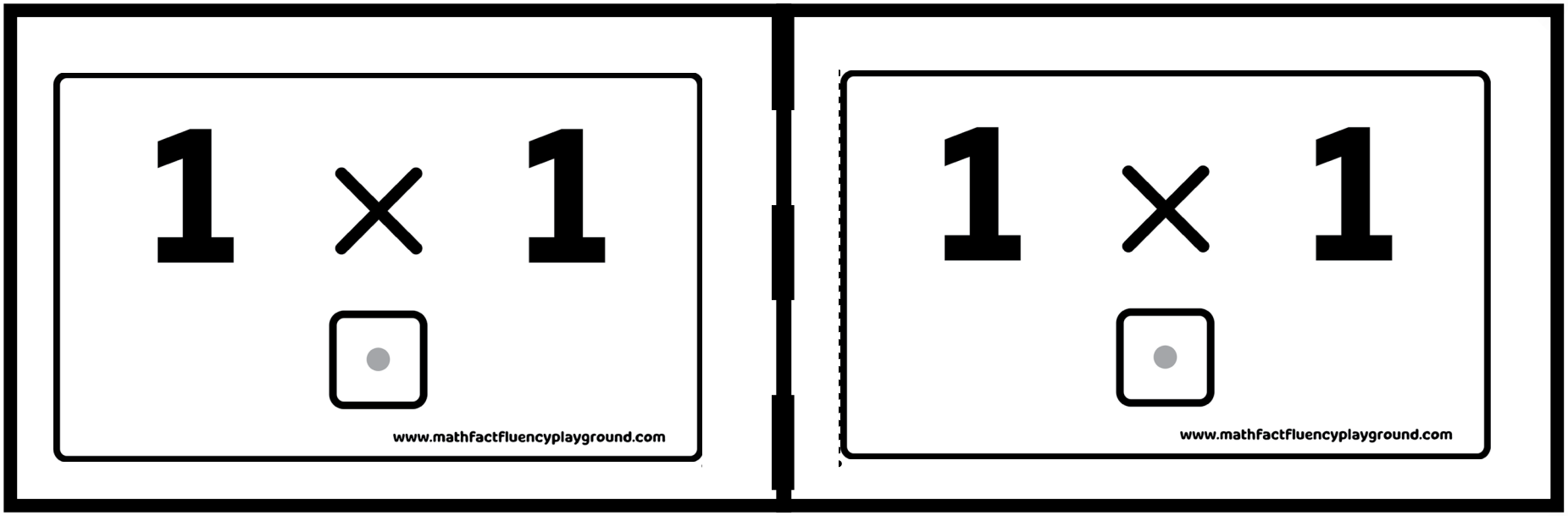
700 

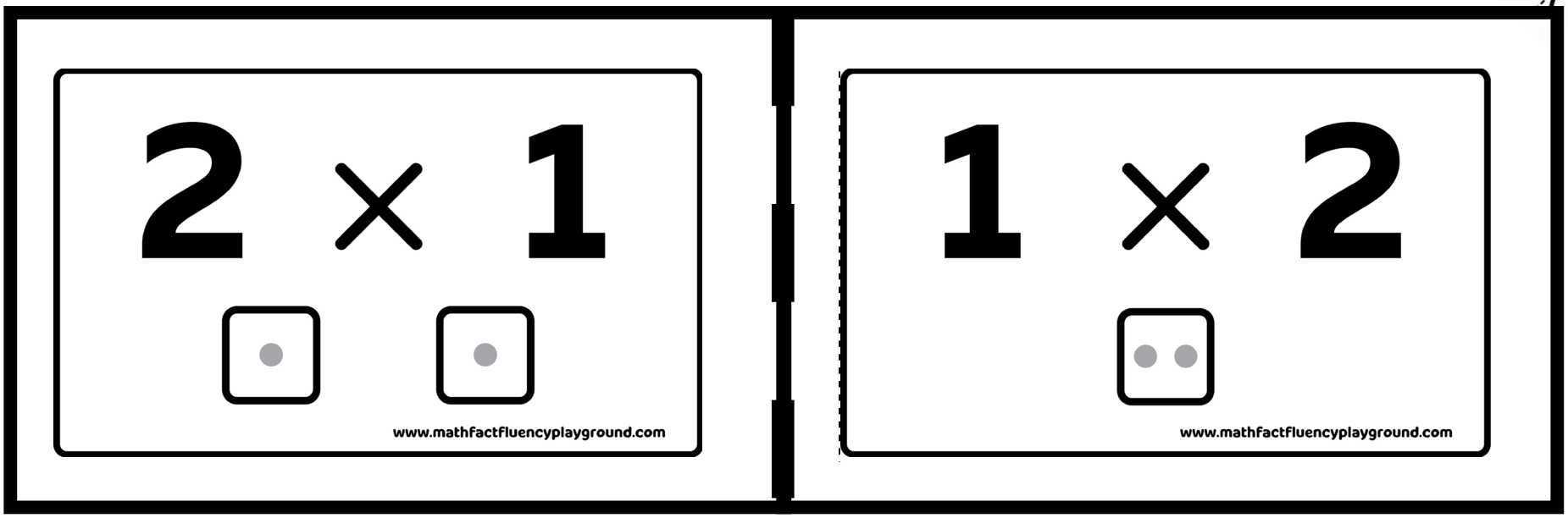
800 

900 

1000 

DICE FLASHCARDS





DICE FLASHCARDS

3×1

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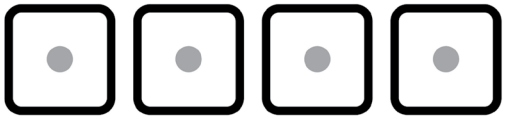
1×3

www.mathfactfluencyplayground.com

4×1



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1×4

www.mathfactfluencyplayground.com

DICE FLASHCARDS

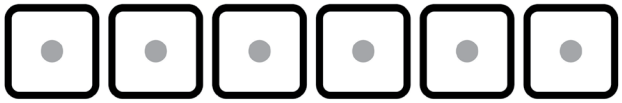
5×1

www.mathfactfluencyplayground.com

1×5

www.mathfactfluencyplayground.com

6×1



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1×6

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DICE FLASHCARDS

7×1

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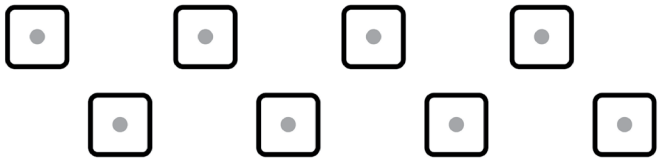
1×7

www.mathfactfluencyplayground.com

8×1



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1×8

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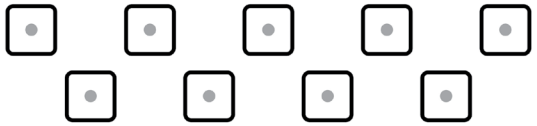
DICE FLASHCARDS

9×1



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1×9

www.mathfactfluencyplayground.com

10×1

www.mathfactfluencyplayground.com

1×10

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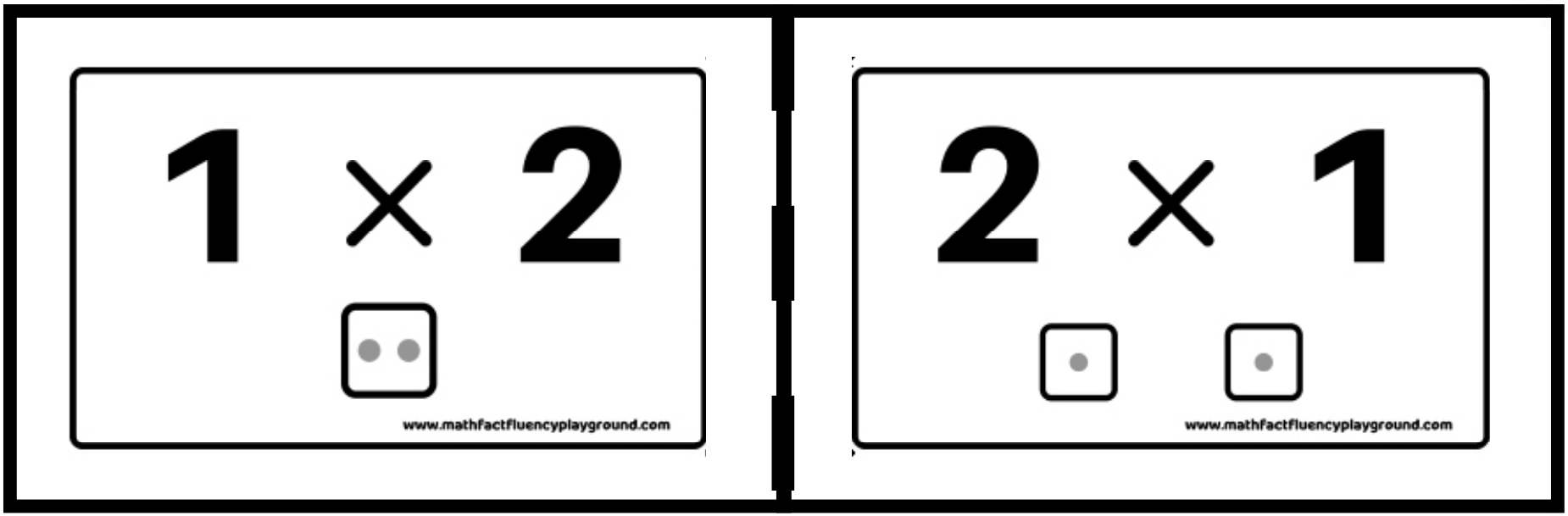
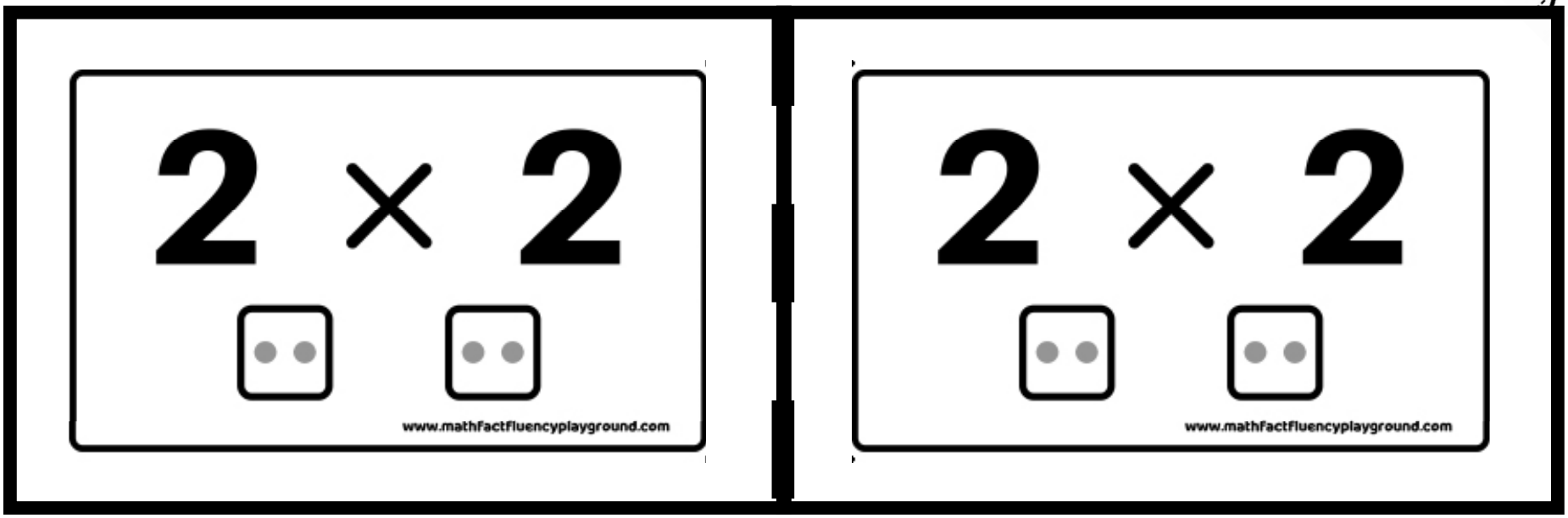
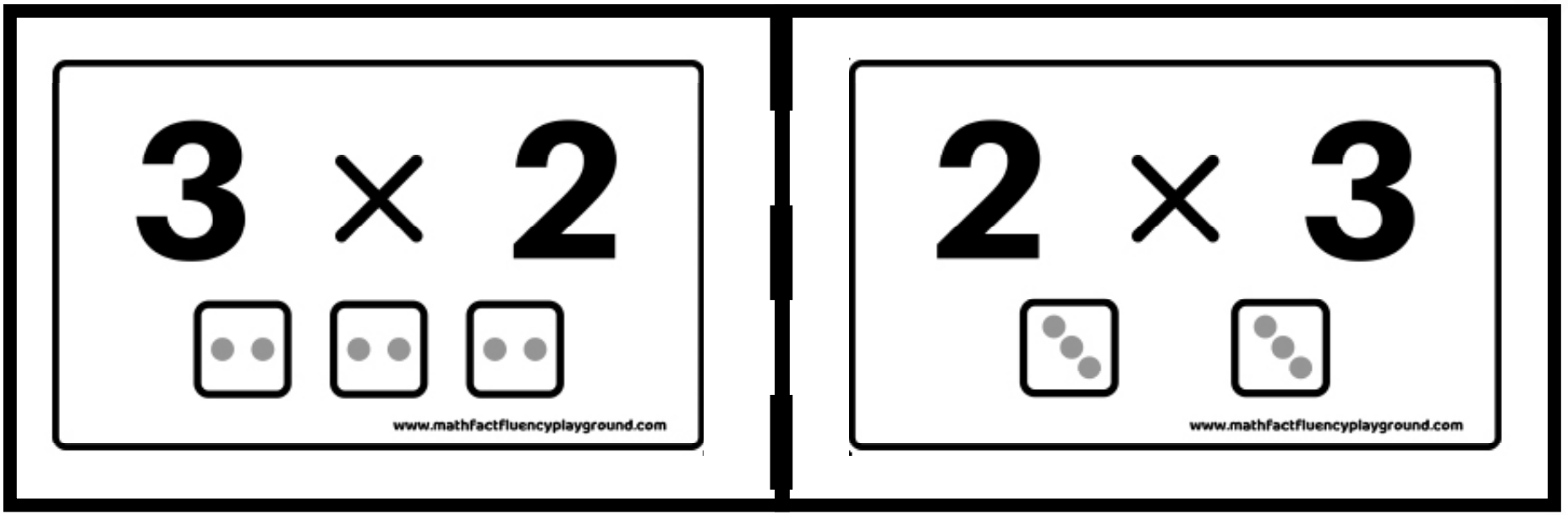
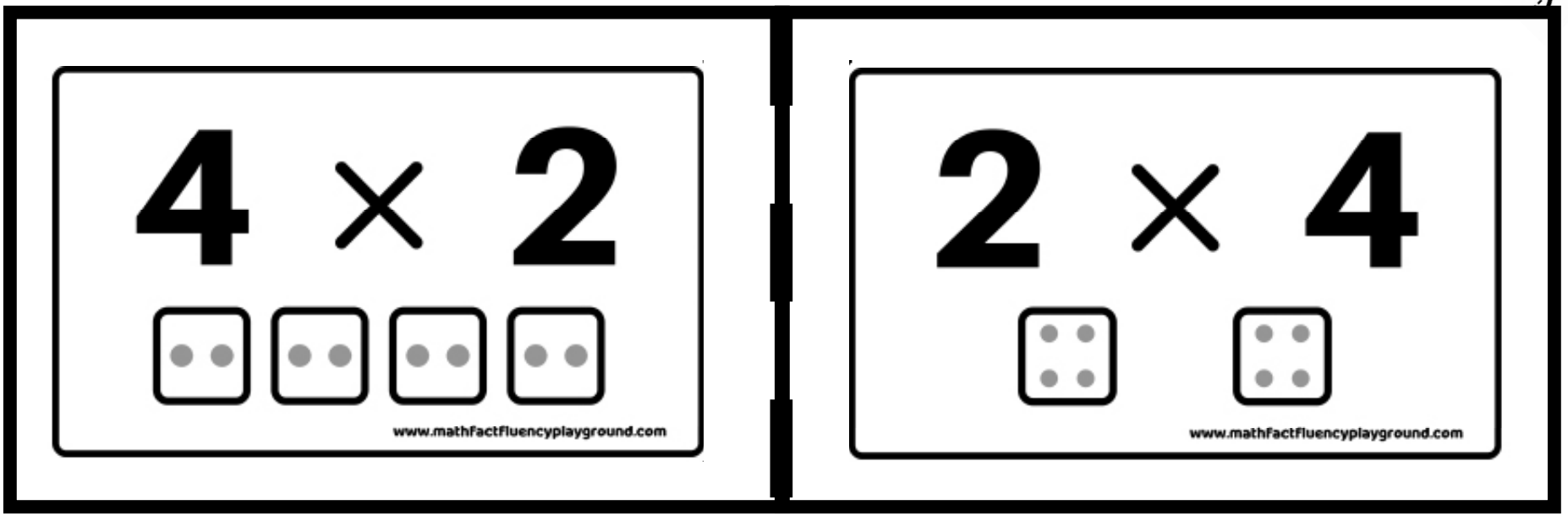
DICE FLASHCARDS





DICE FLASHCARDS





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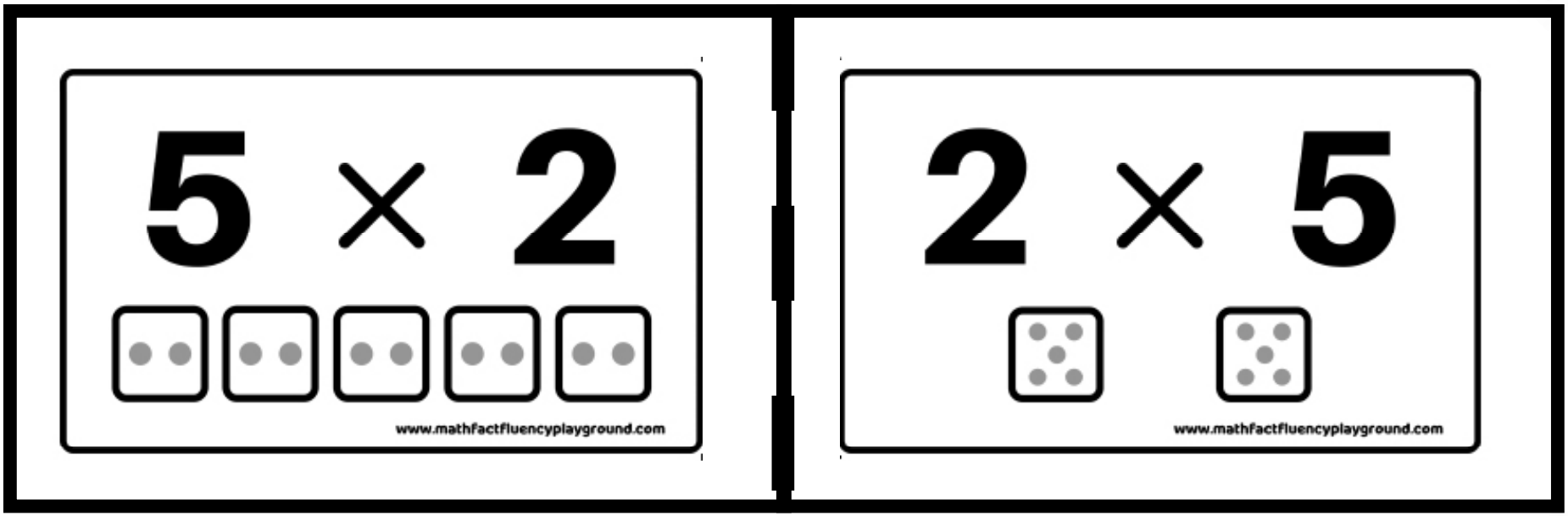

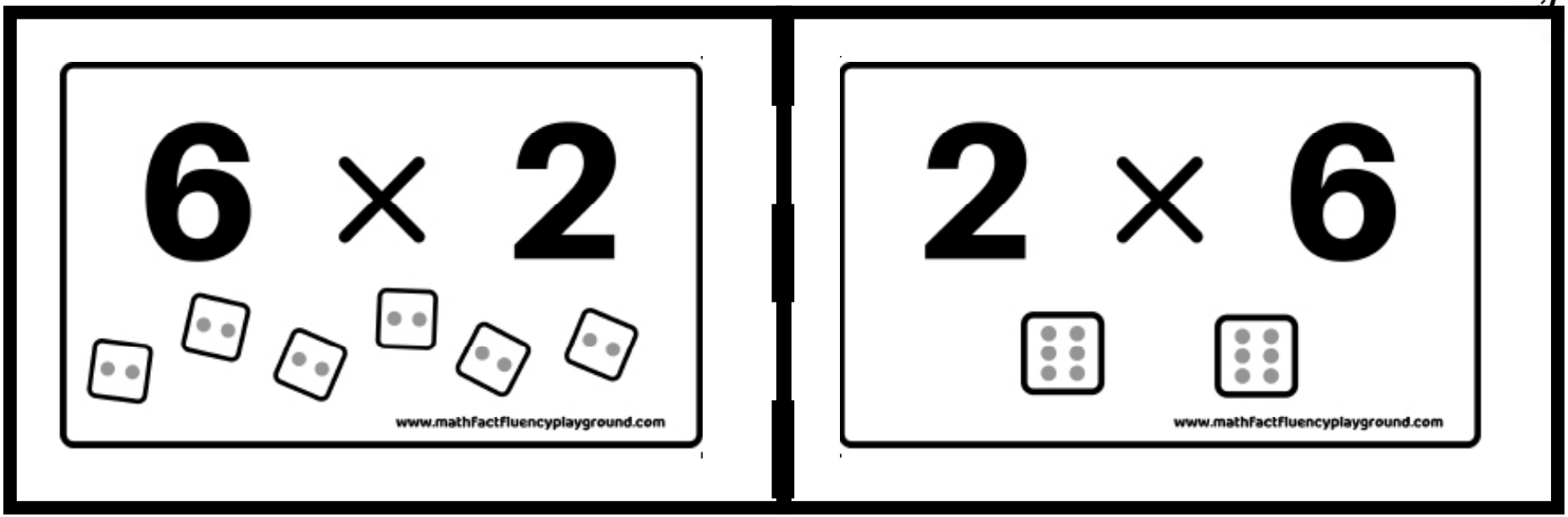

DICE FLASHCARDS

7×2

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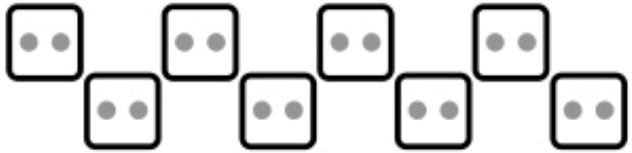
2×7

www.mathfactfluencyplayground.com

8×2



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2×8

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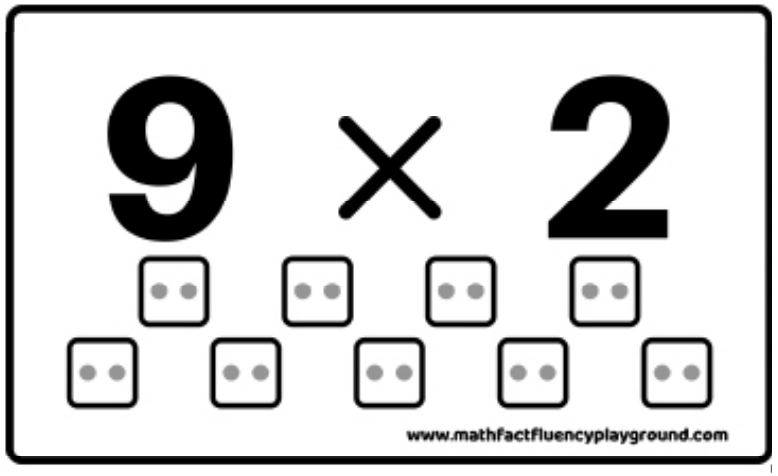
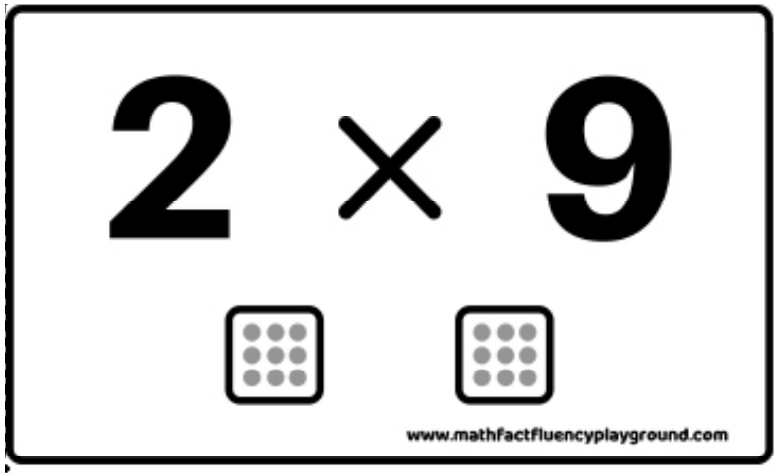
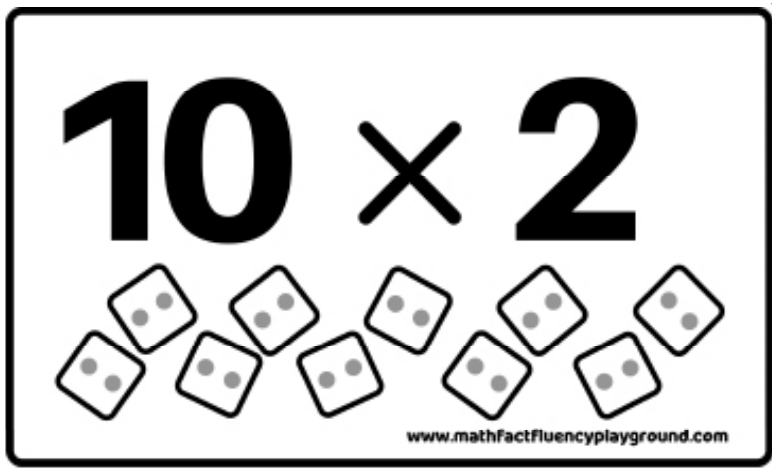
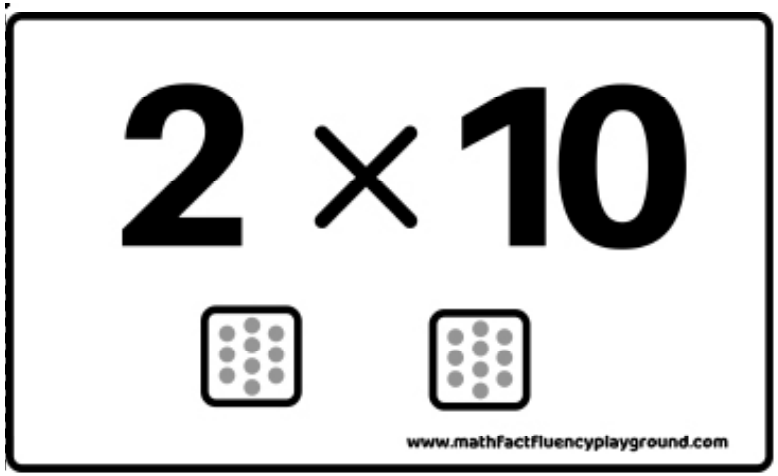
DICE FLASHCARDS









DICE FLASHCARDS

1×3

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3×1

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2×3

www.mathfactfluencyplayground.com

3×2

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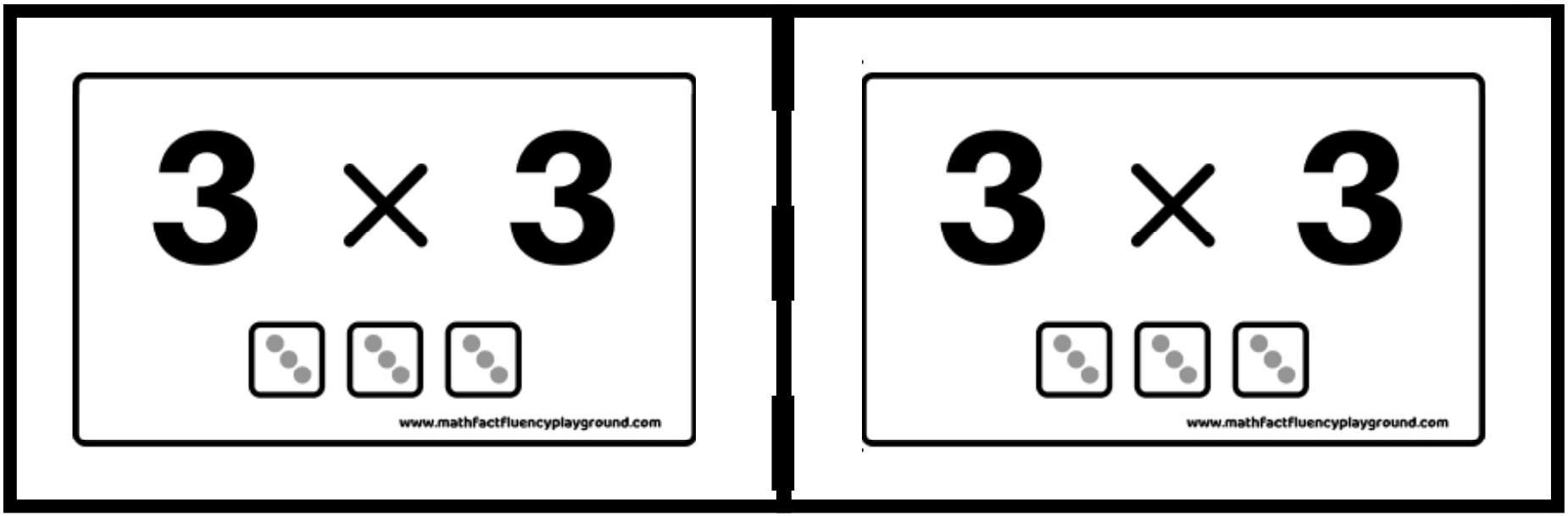
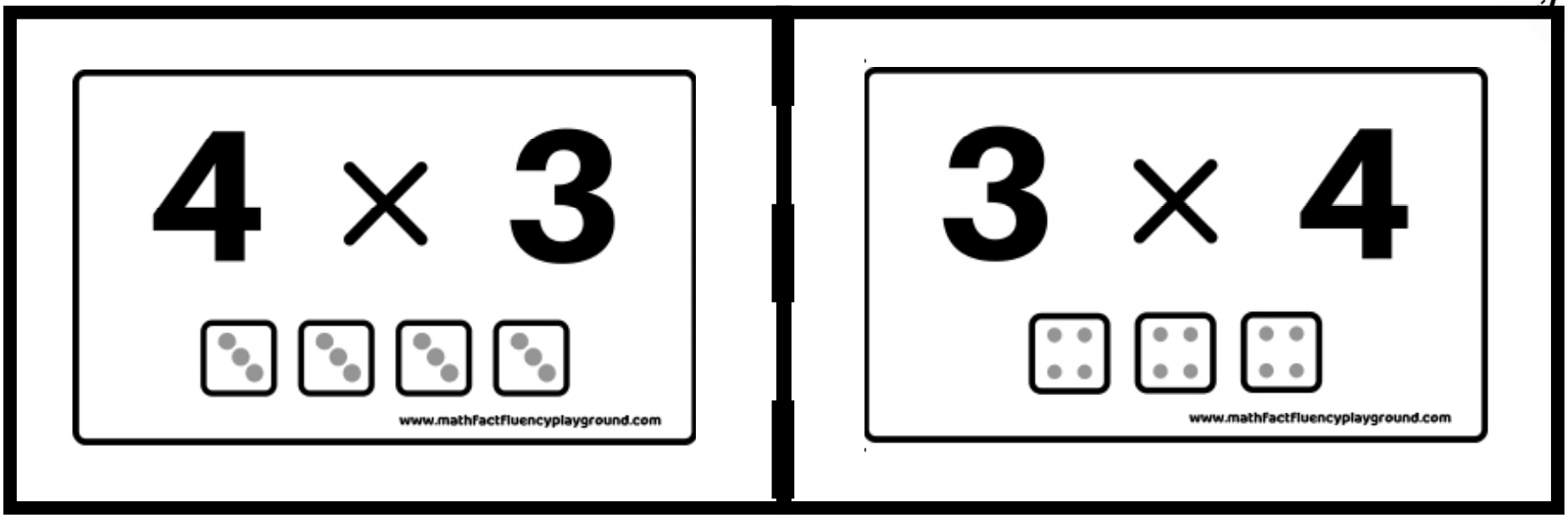
DICE FLASHCARDS





DICE FLASHCARDS

5×3

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3×5

www.mathfactfluencyplayground.com

6×3

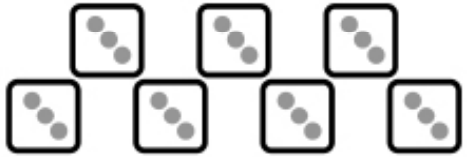
www.mathfactfluencyplayground.com

3×6

www.mathfactfluencyplayground.com

DICE FLASHCARDS

7×3



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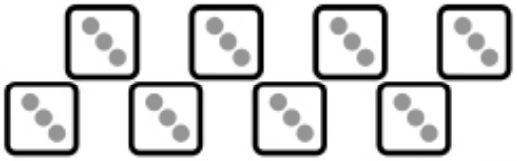
3×7

www.mathfactfluencyplayground.com

8×3



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3×8

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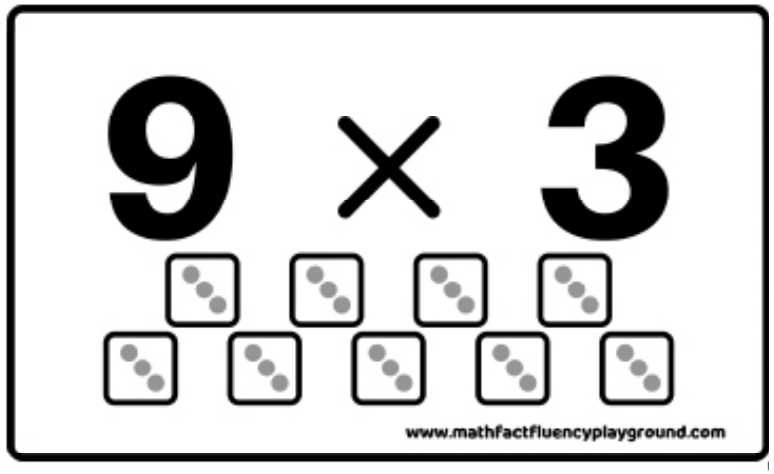
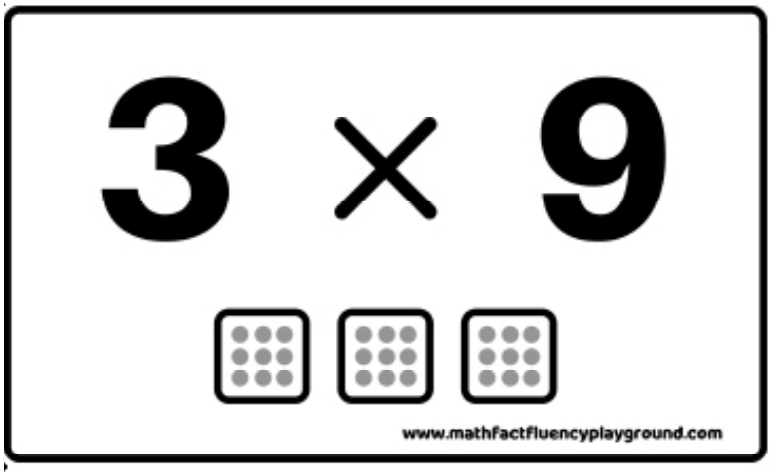
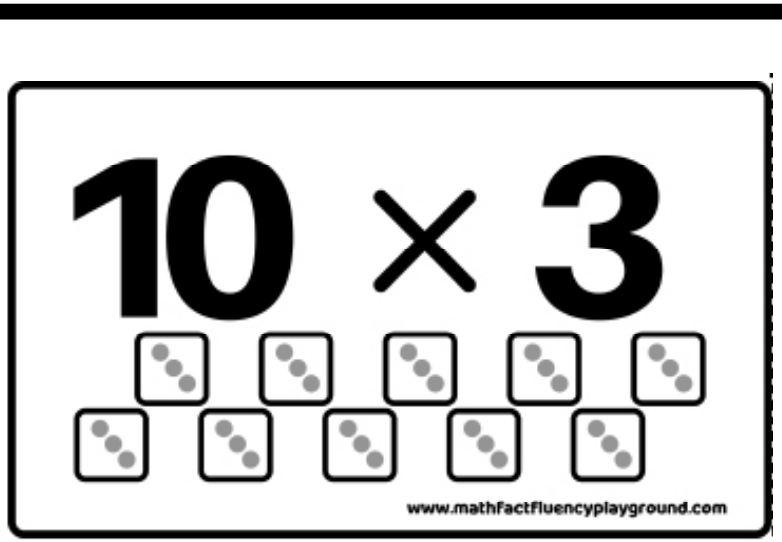
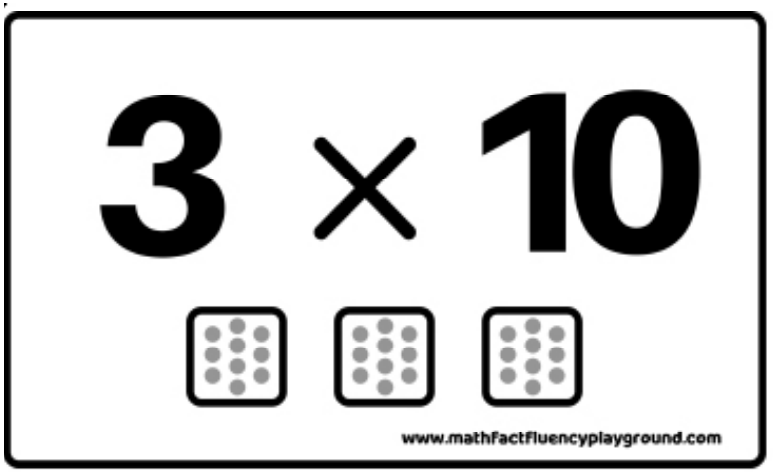
DICE FLASHCARDS









DICE FLASHCARDS

1 × 4

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4 × 1

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2 × 4

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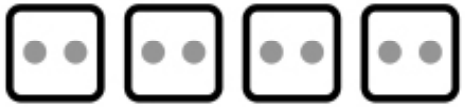
4 × 2



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DICE FLASHCARDS

3×4

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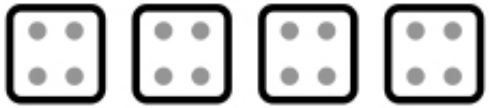
4×3

www.mathfactfluencyplayground.com

4×4



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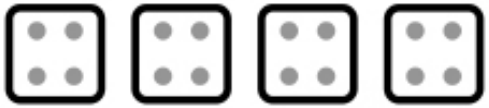
4×4



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DICE FLASHCARDS

5×4

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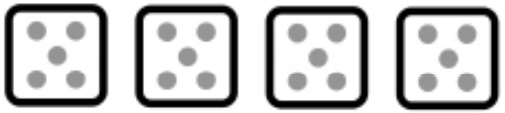
4×5



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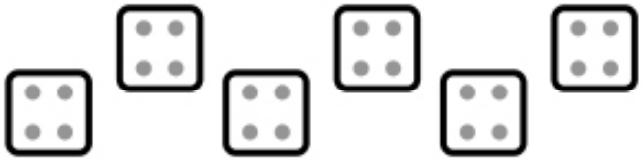
6×4



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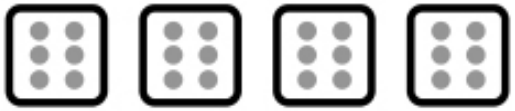
4×6



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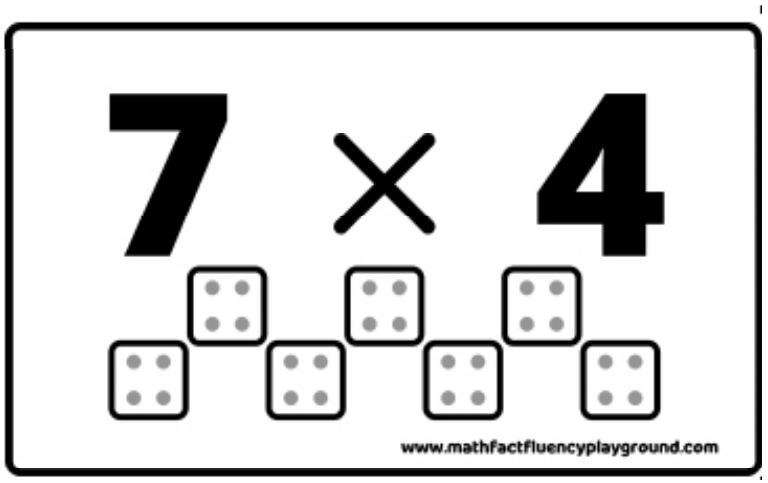

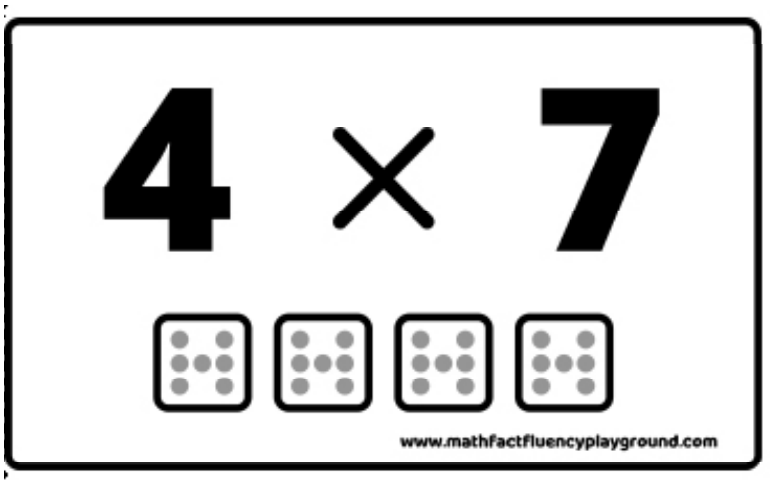

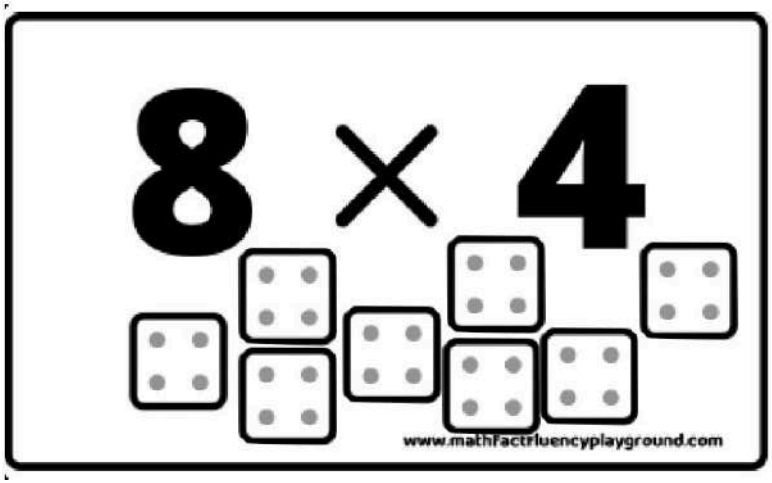

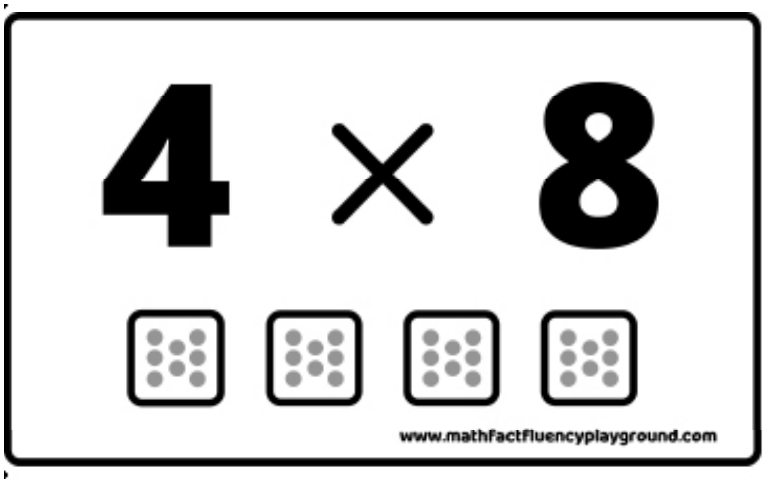

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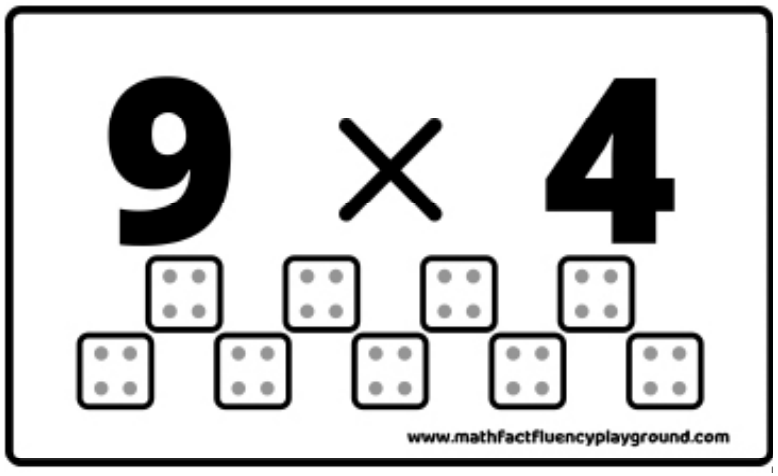
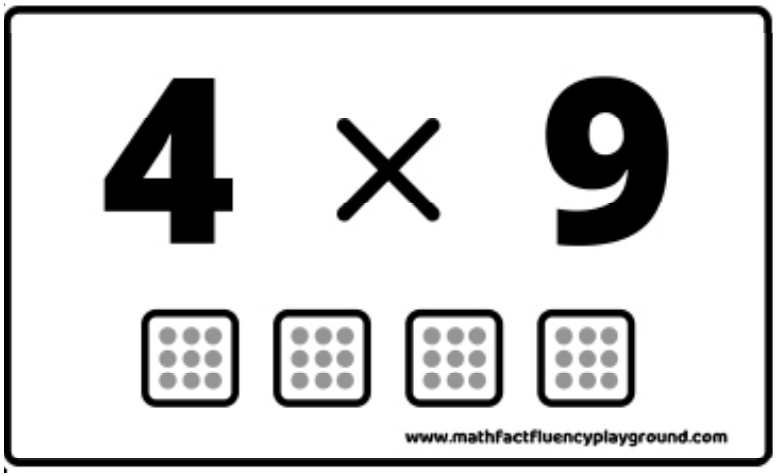
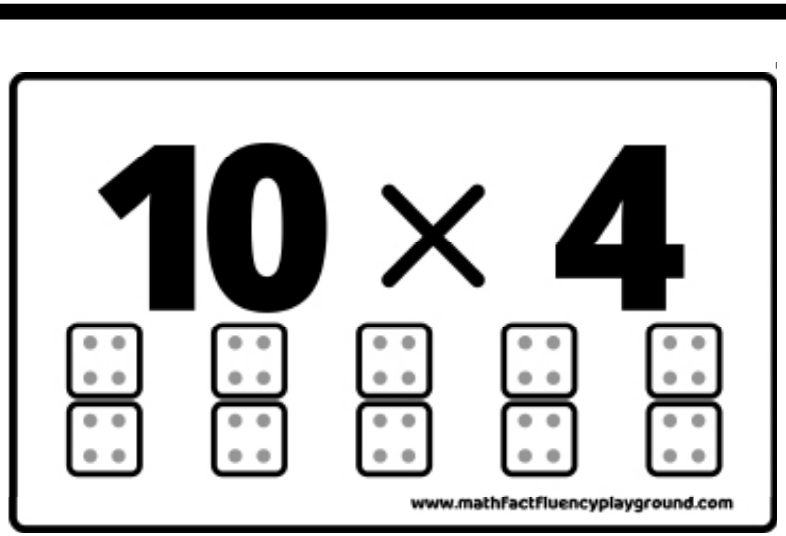
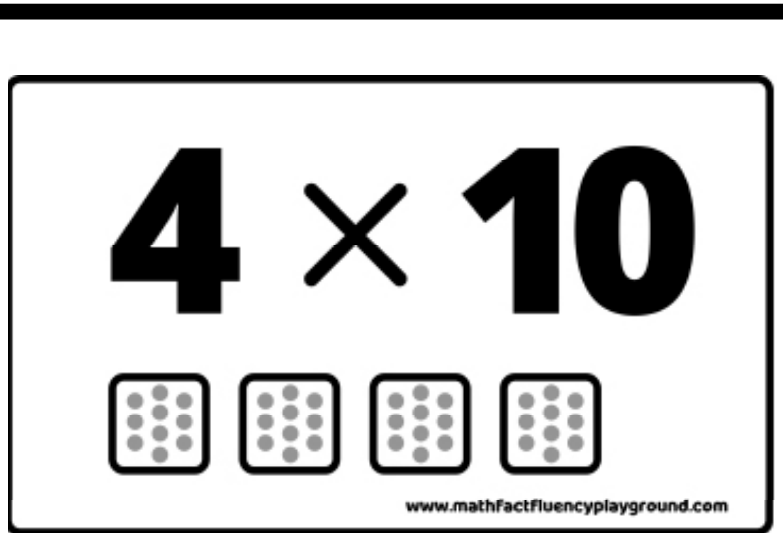




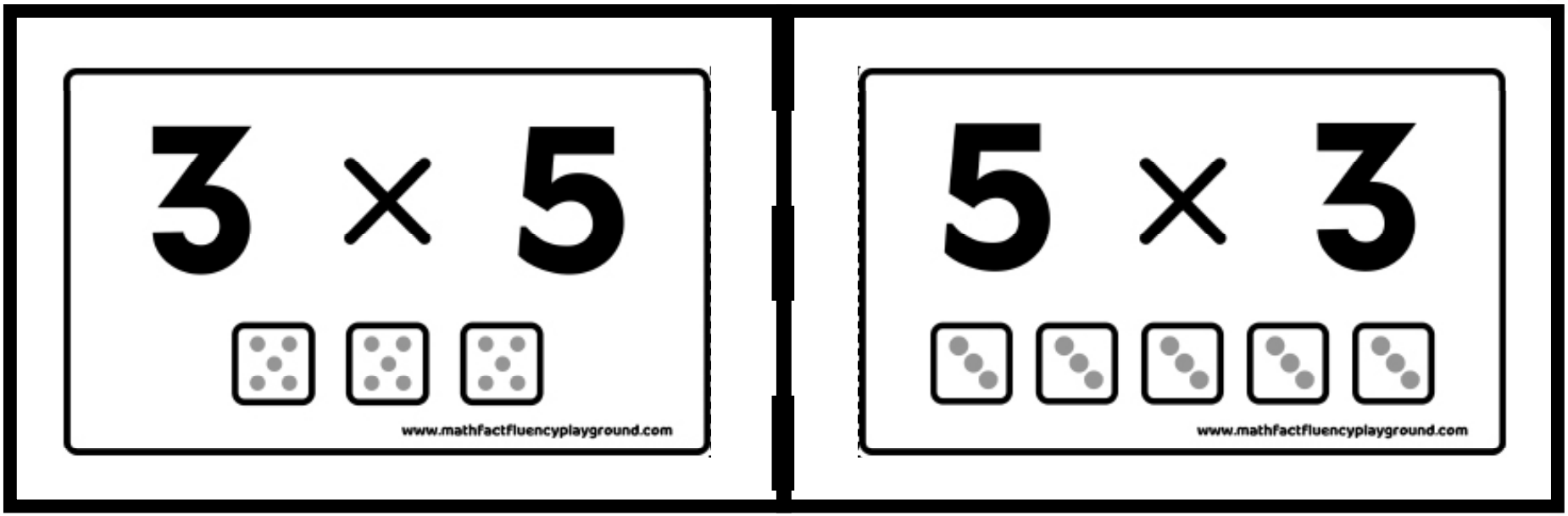


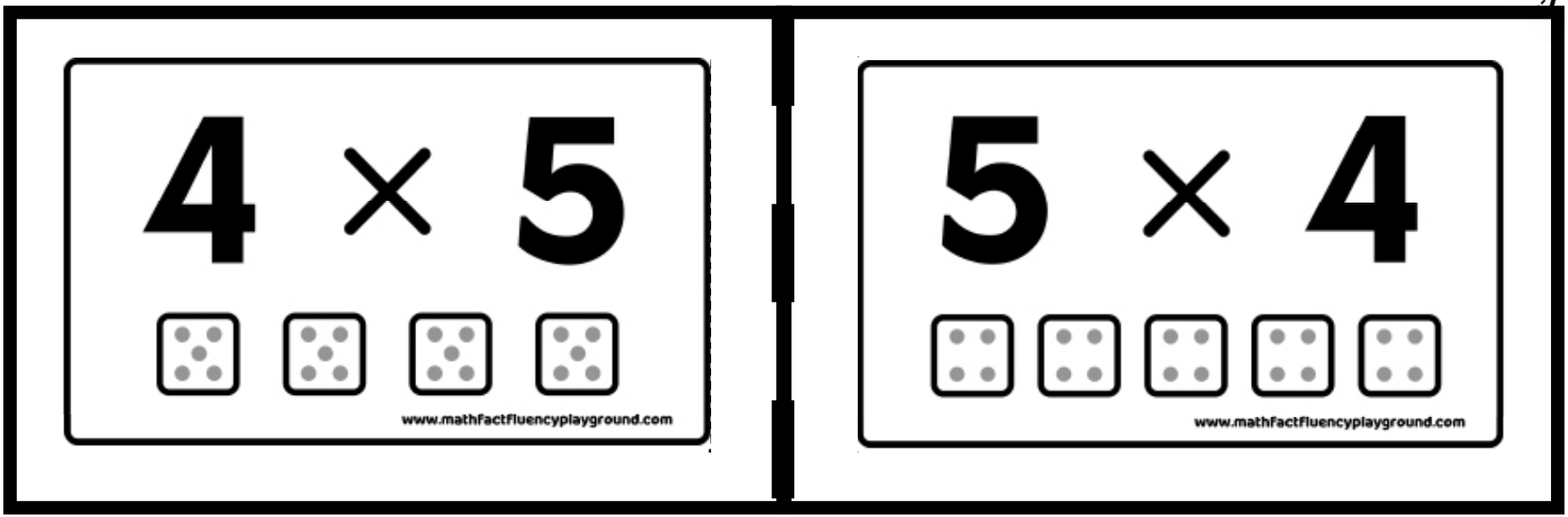


DICE FLASHCARDS

1 × 5  www.mathfactfluencyplayground.com	5 × 1  www.mathfactfluencyplayground.com
2 × 5  www.mathfactfluencyplayground.com	5 × 2  www.mathfactfluencyplayground.com

DICE FLASHCARDS





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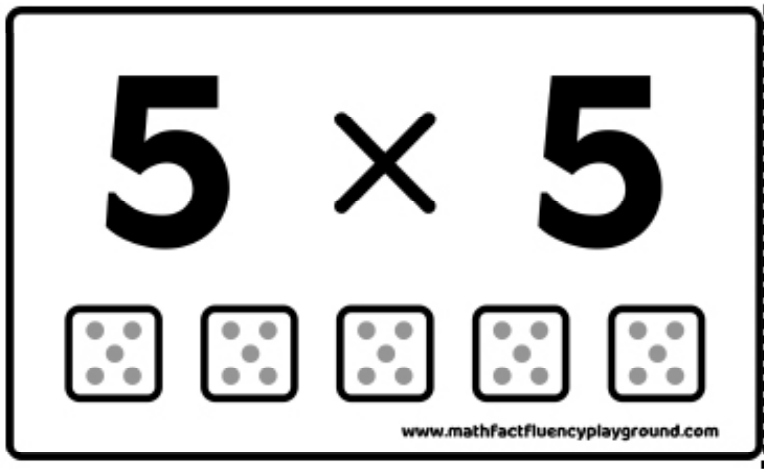

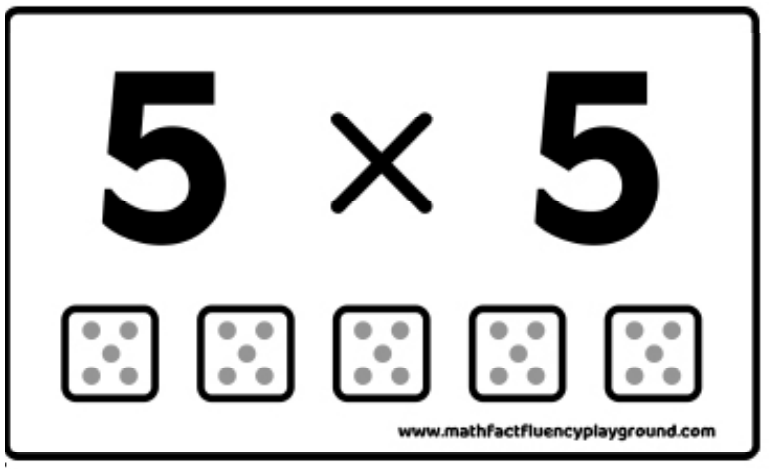

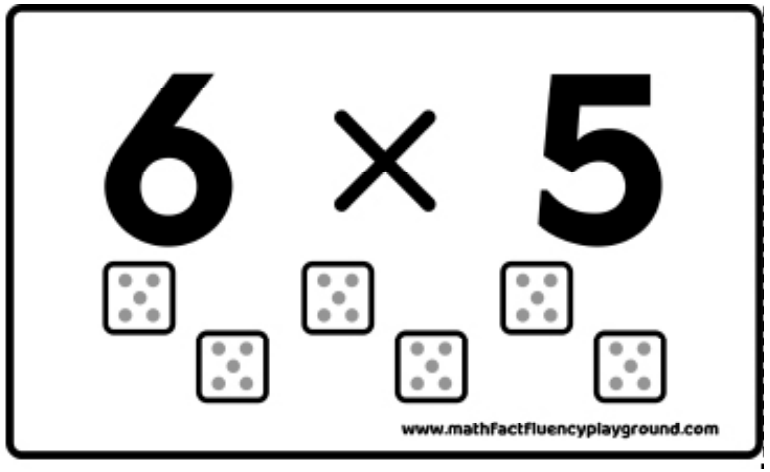

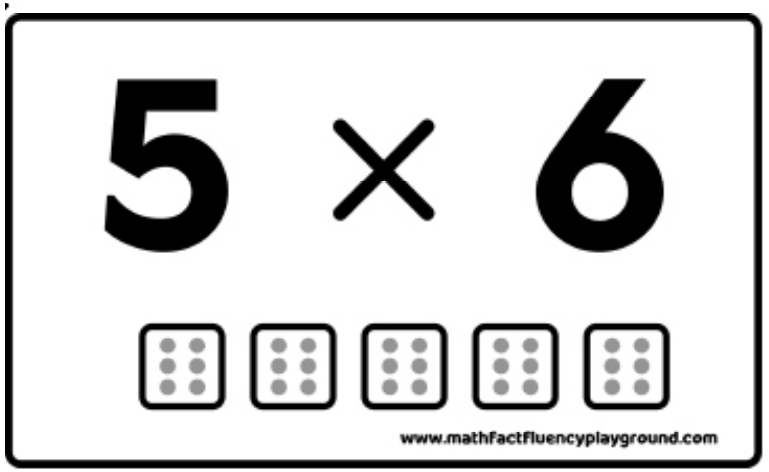

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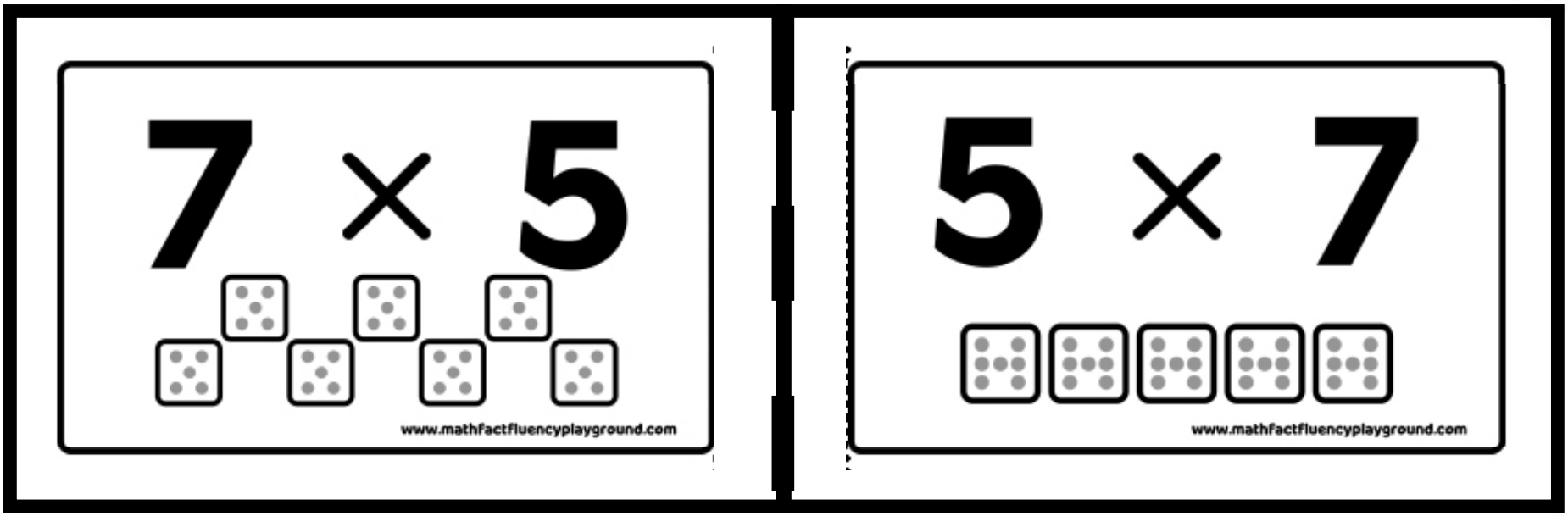
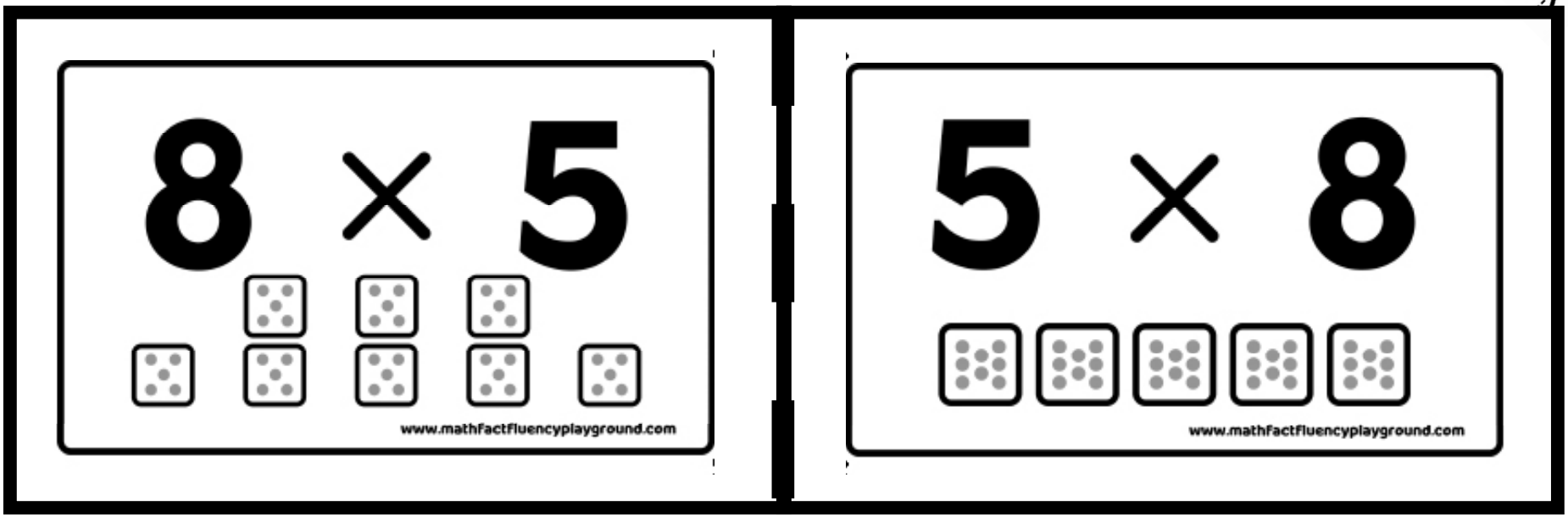
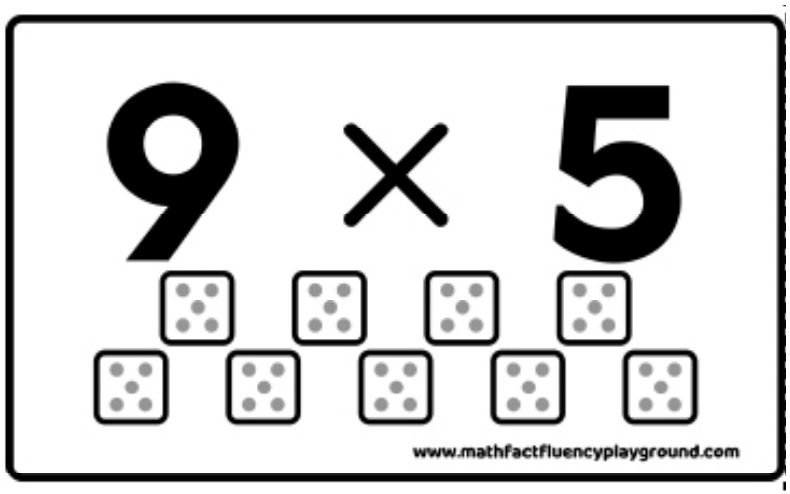
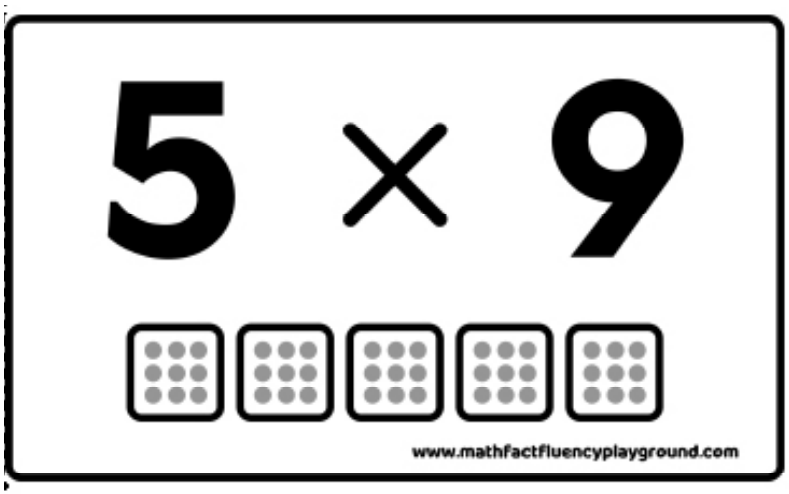
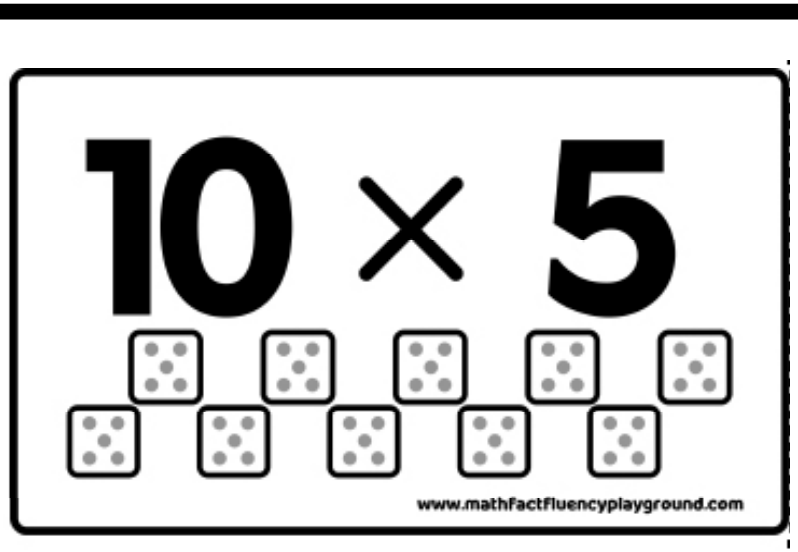


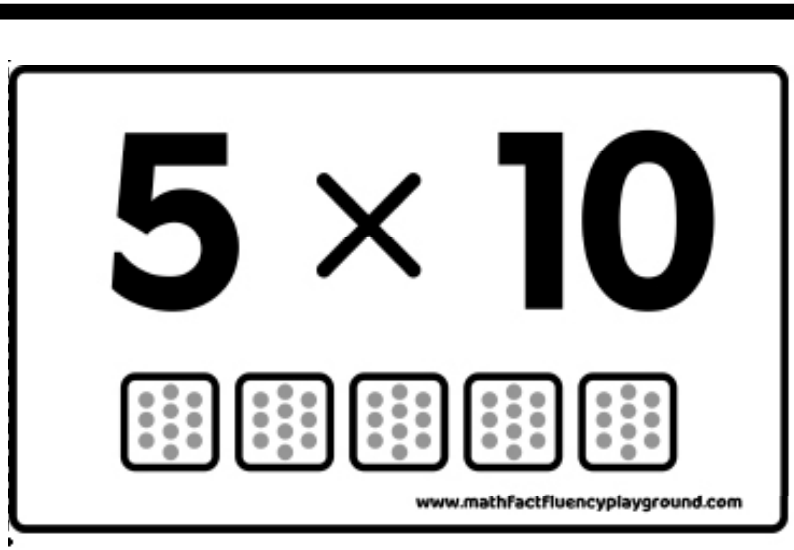


DICE FLASHCARDS



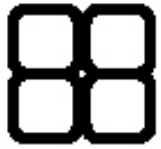






ADD ODD AND EVEN MULTIPLICATION FLASHCARDS

$2 \times 2 = ?$



Even × Even = ?

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4

Even

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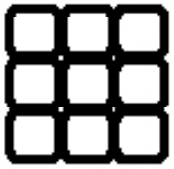
$3 \times 3 = ?$



Odd × Odd = ?

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9

Odd

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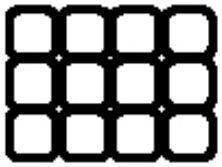
ADD ODD AND EVEN MULTIPLICATION FLASHCARDS

$3 \times 4 = ?$



Odd × Even = ?

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12

Even

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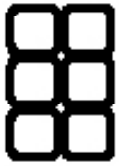
$3 \times 2 = ?$



Odd × Even = ?

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6

Even

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ADD ODD AND EVEN MULTIPLICATION FLASHCARDS

$2 \times 1 = ?$

Even × Odd = ?

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2

Even

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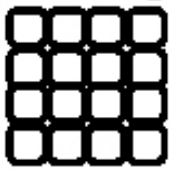
$4 \times 4 = ?$



Even × Even = ?

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16

Even

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ADD ODD AND EVEN MULTIPLICATION FLASHCARDS

$2 \times 4 = ?$

Even × Even = ?

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8

Even

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$5 \times 2 = ?$

Odd × Even = ?

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10

Even

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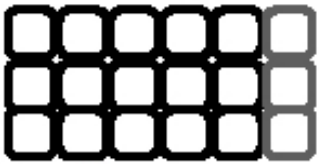
ADD ODD AND EVEN MULTIPLICATION FLASHCARDS

$3 \times 6 = ?$



Odd × Even = ?

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18

Even

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$2 \times 7 = ?$

Even × Odd = ?

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14

Even

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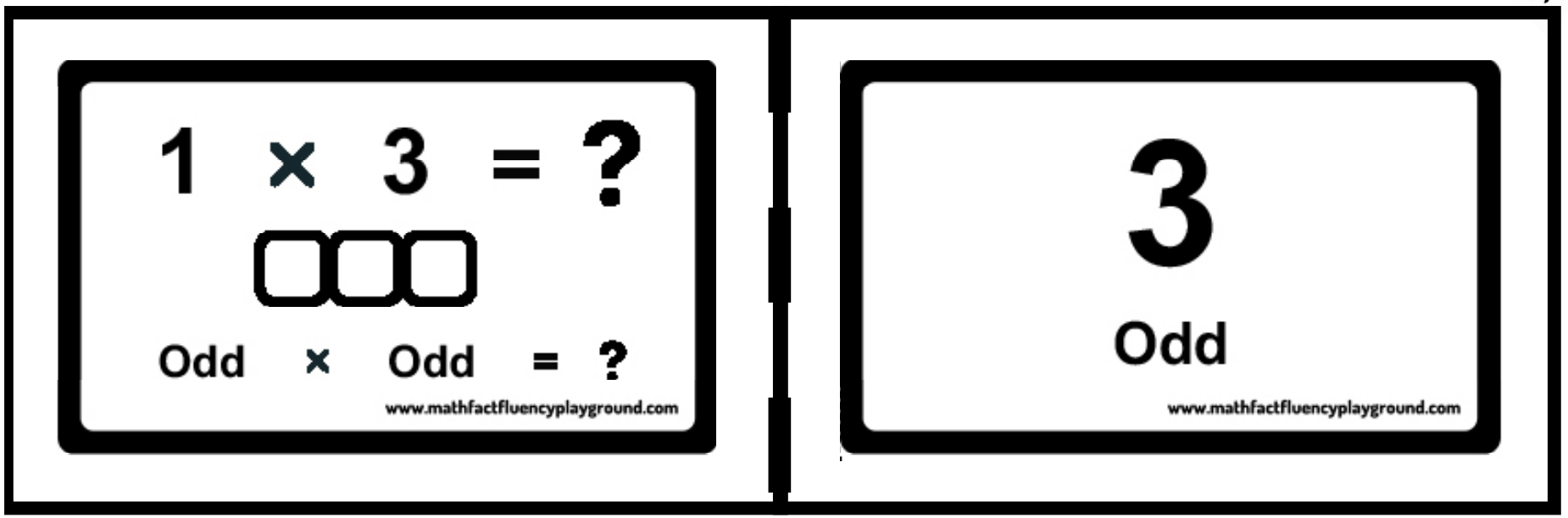
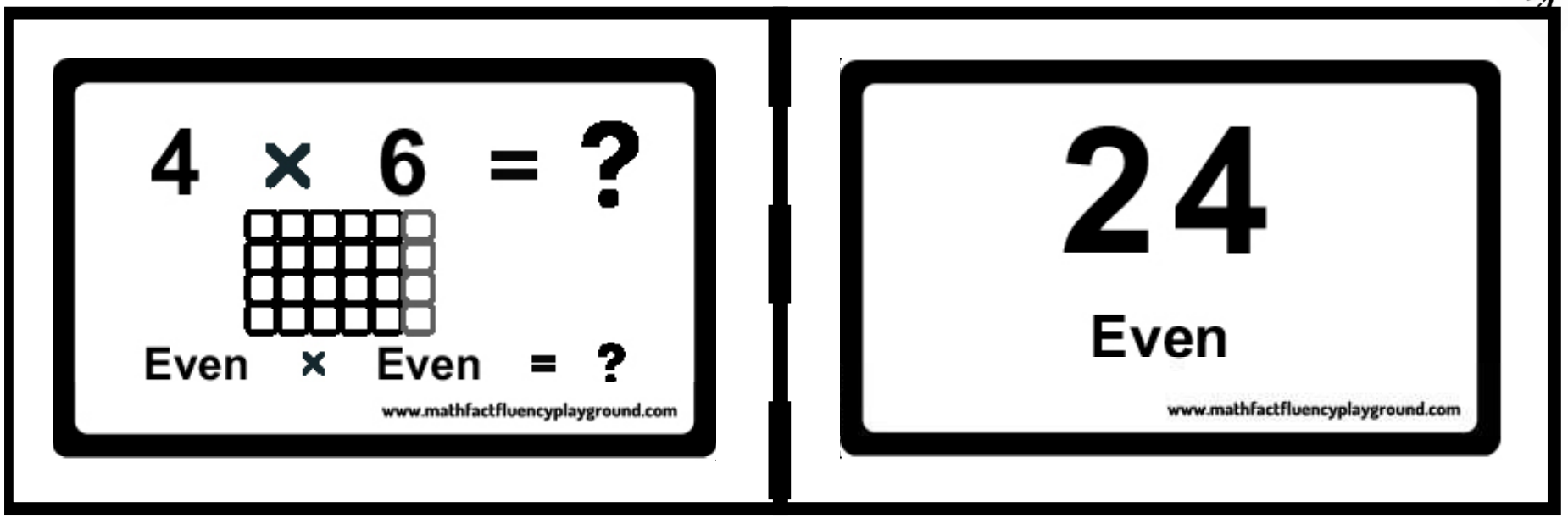
ADD ODD AND EVEN MULTIPLICATION FLASHCARDS





ADD ODD AND EVEN MULTIPLICATION FLASHCARDS

$1 \times 3 = ?$

Odd × Odd = ?

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3

Odd

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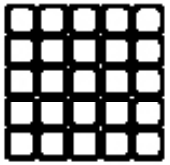
$5 \times 5 = ?$



Odd × Odd = ?

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25

Odd

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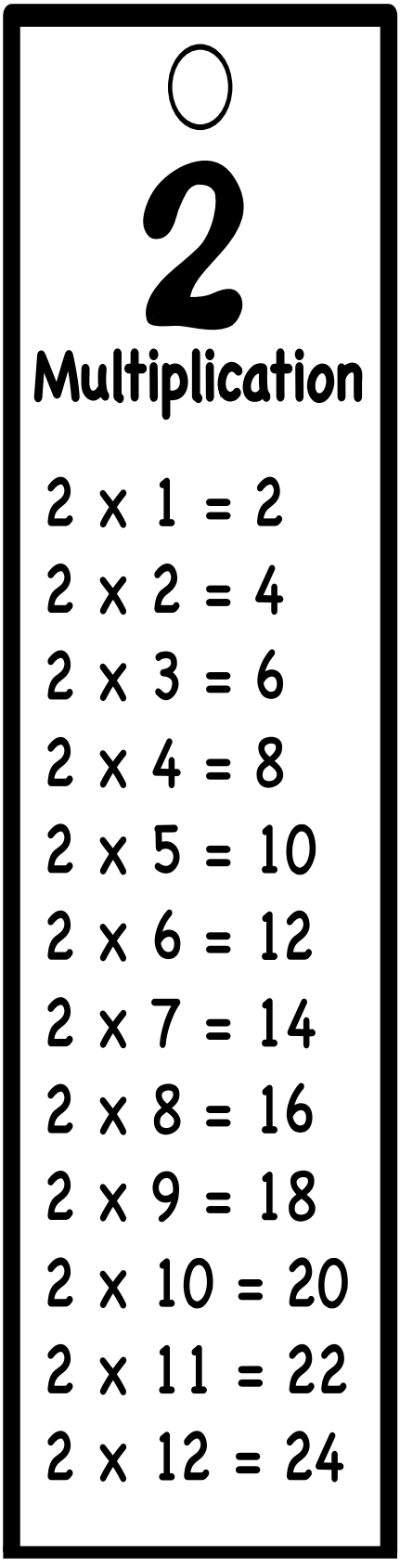
BOOKMARKS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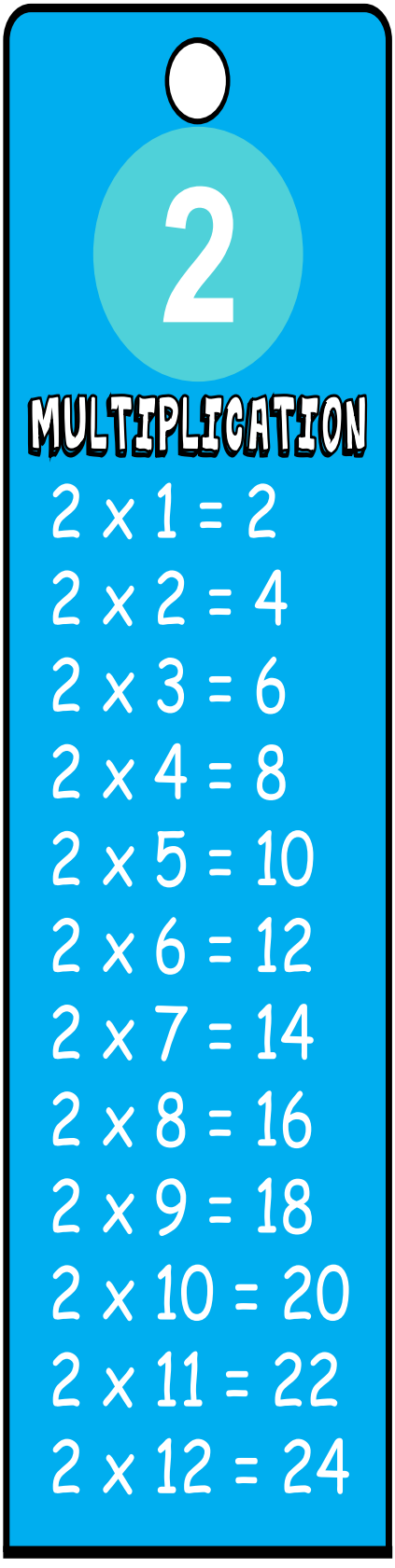
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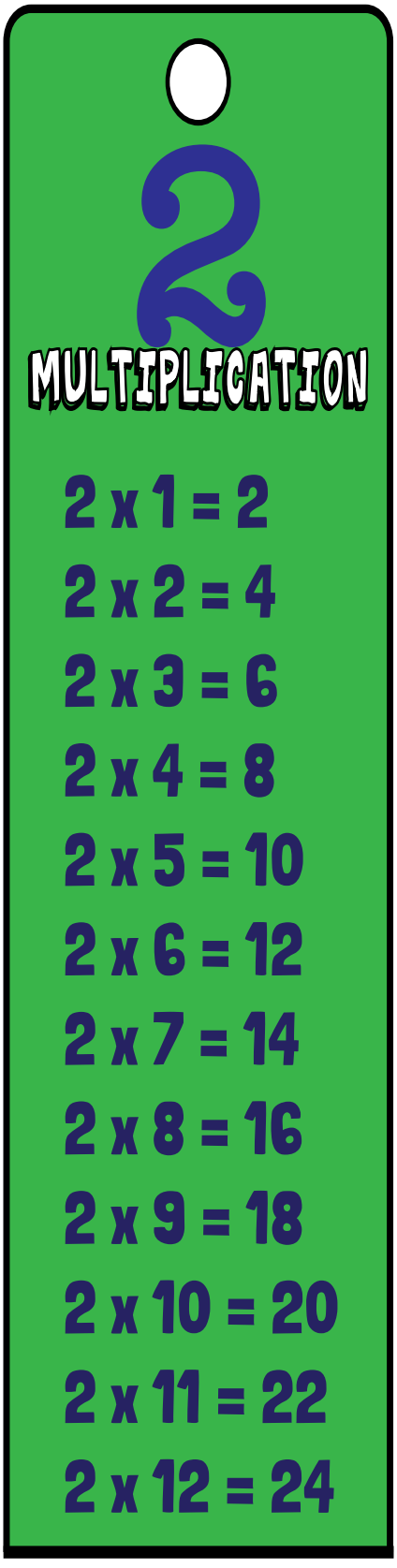
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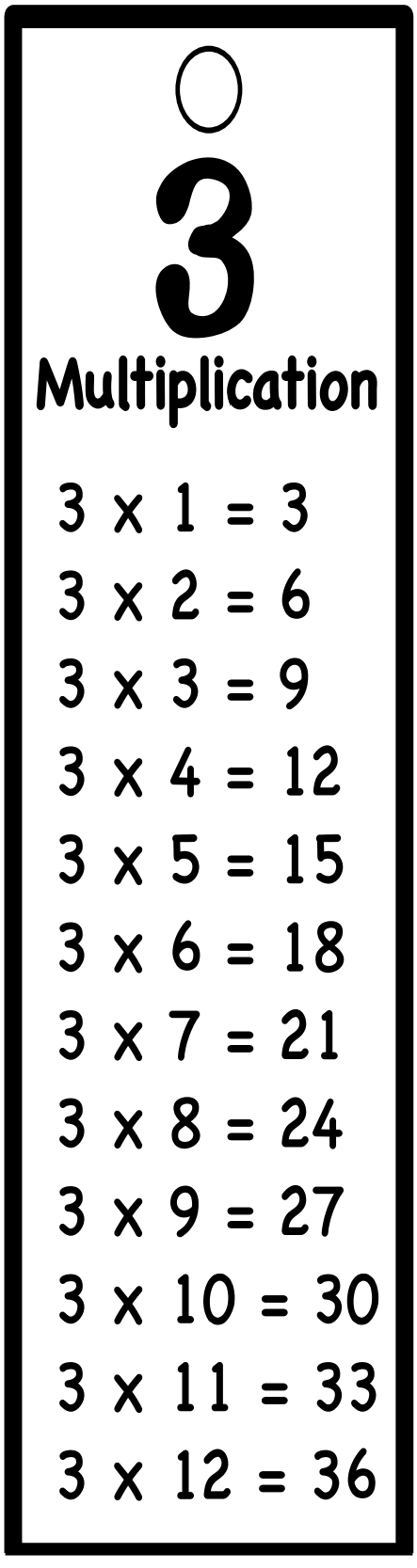
BOOKMARKS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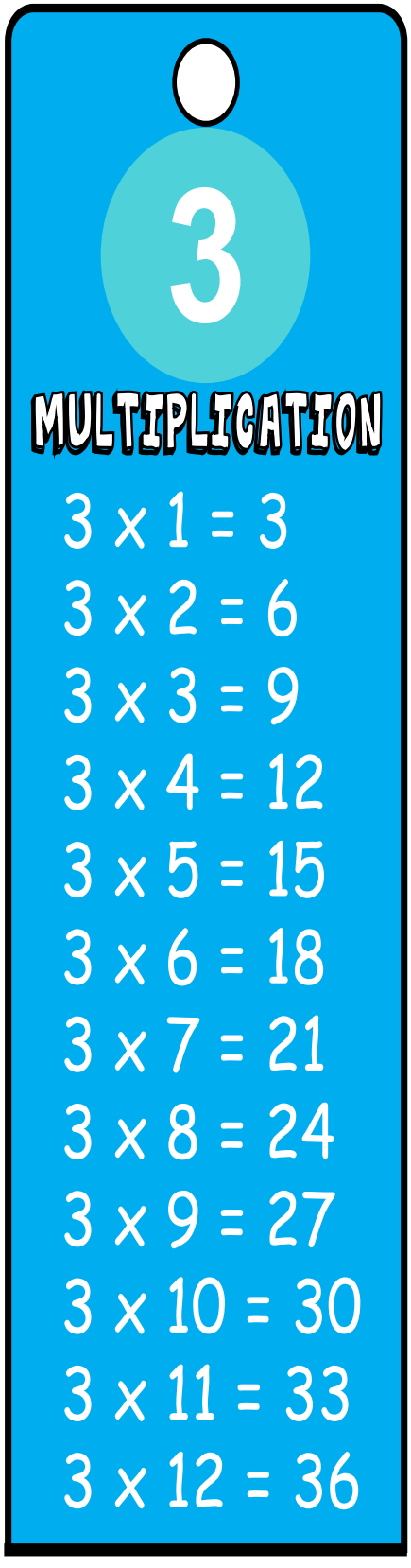
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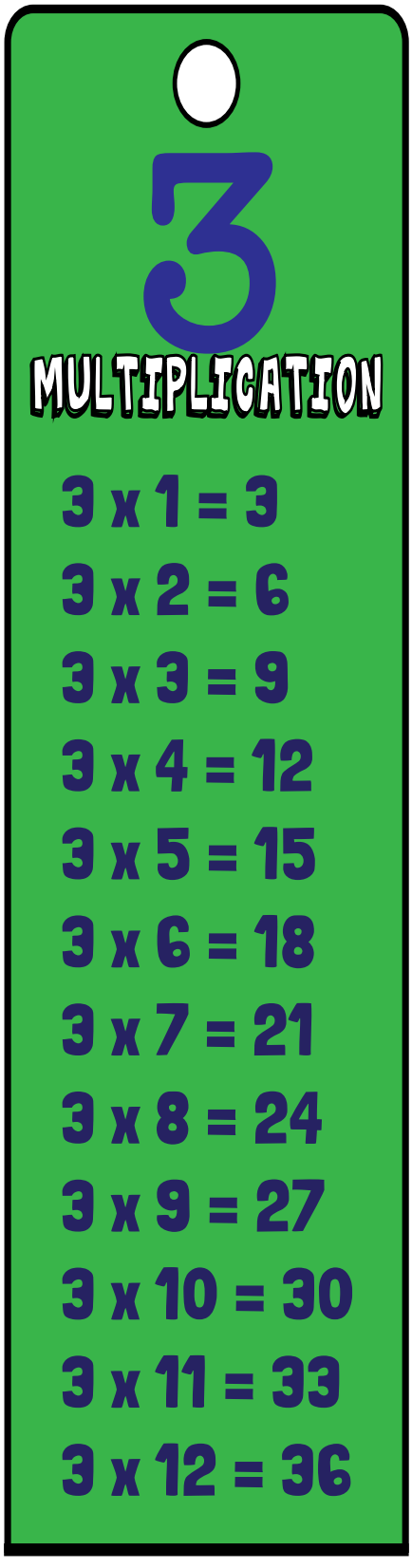
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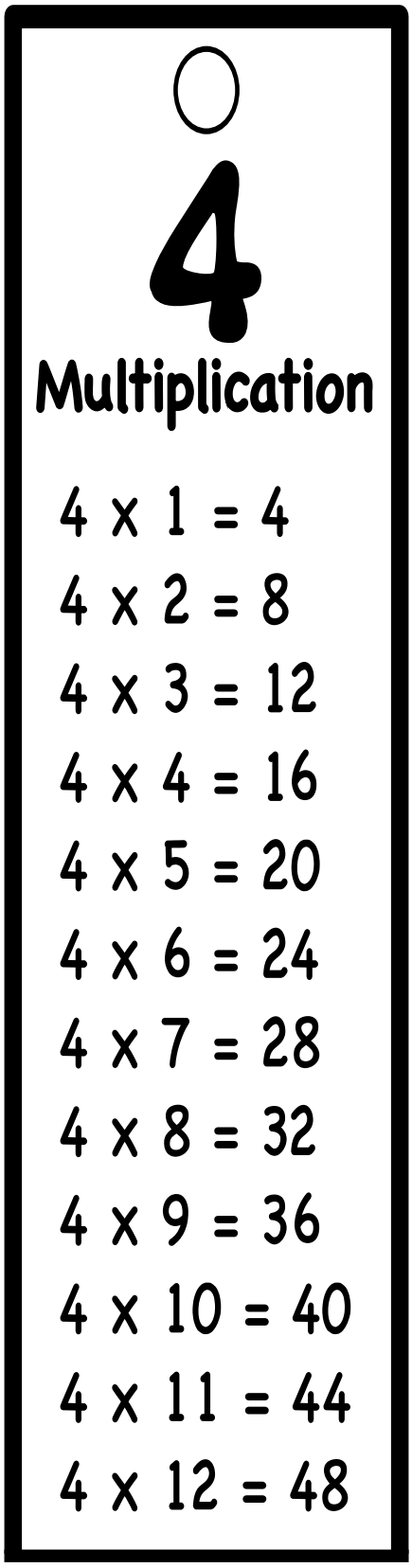
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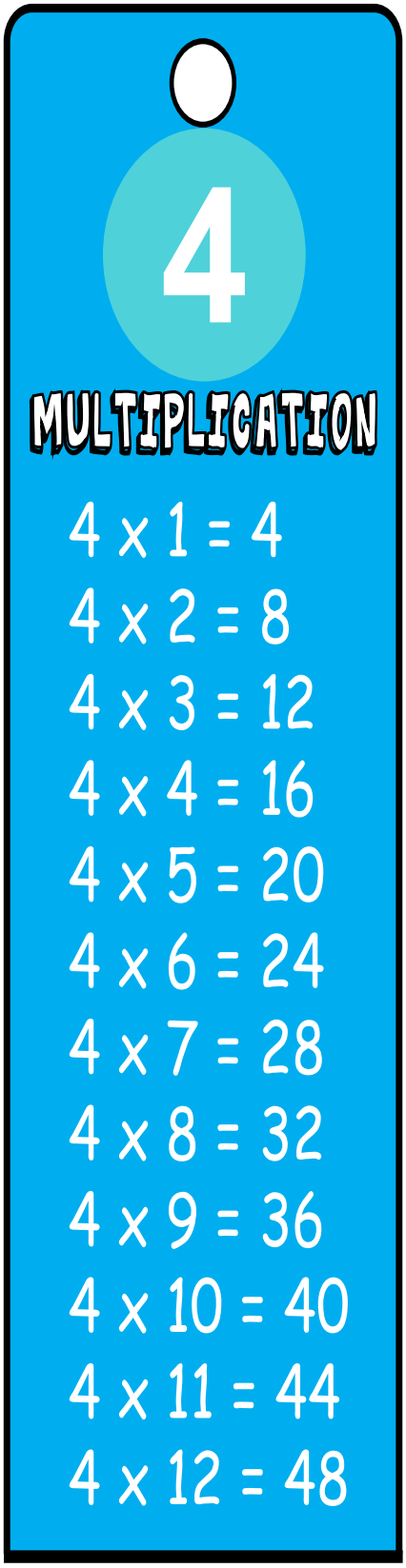
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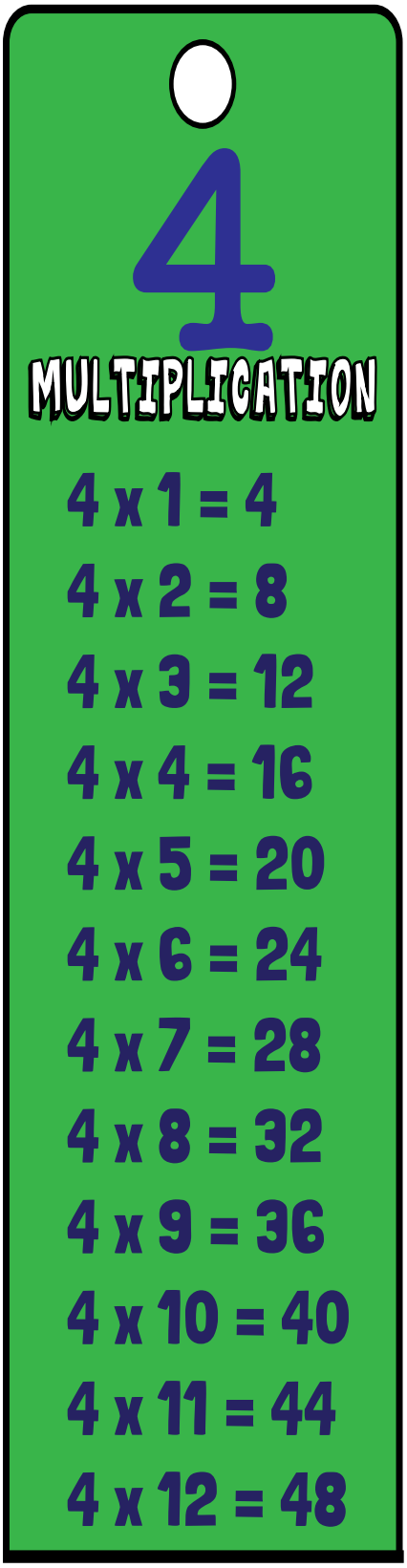
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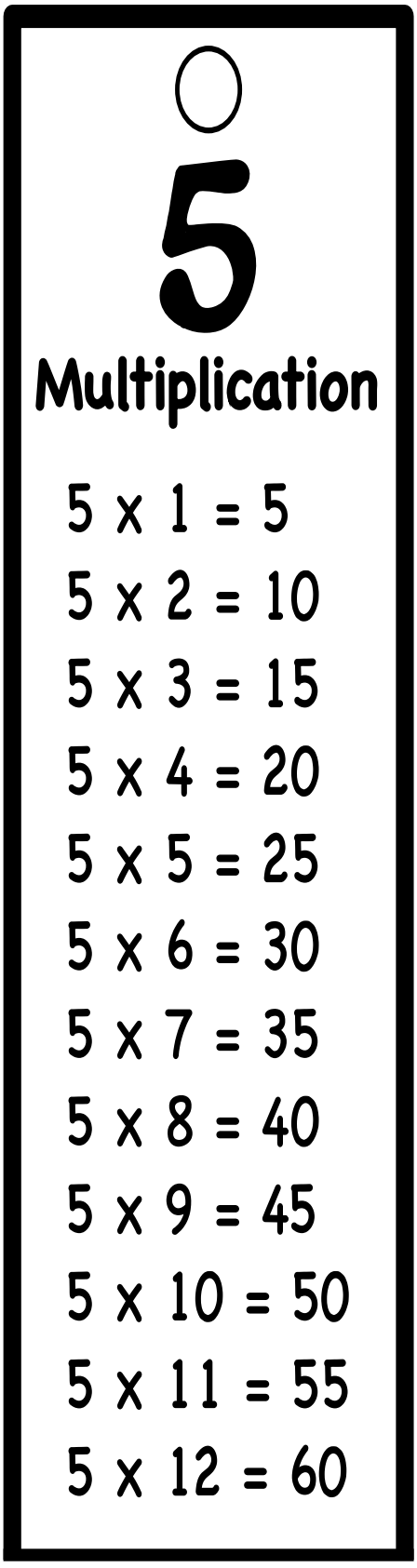
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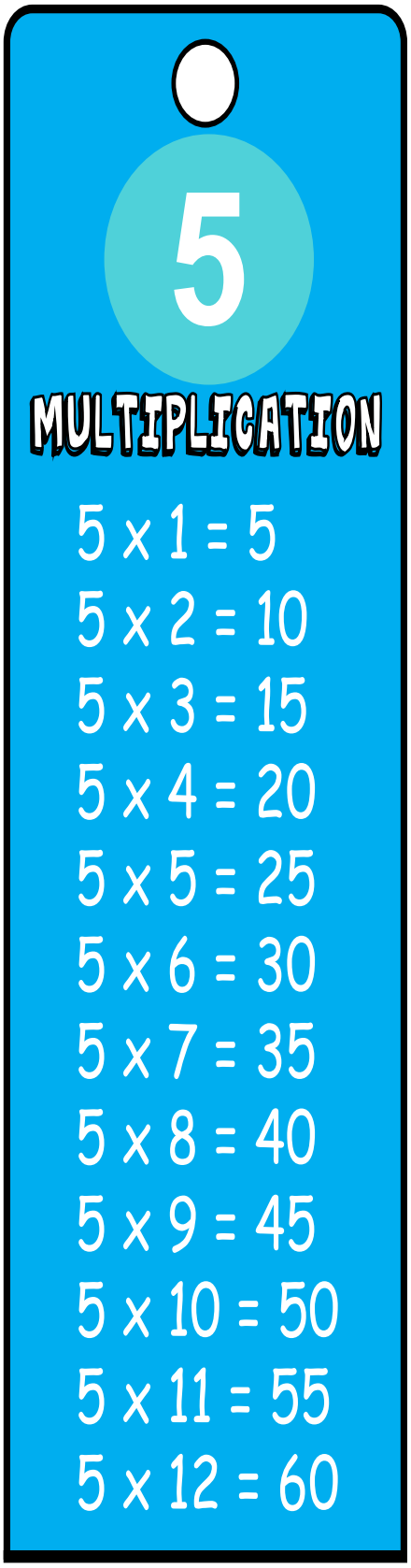
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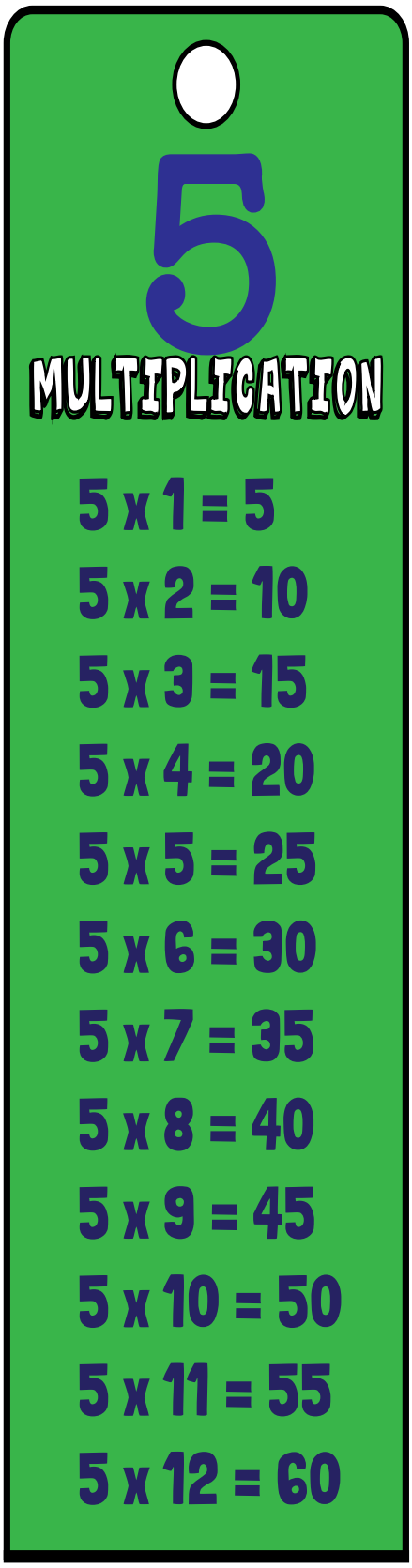
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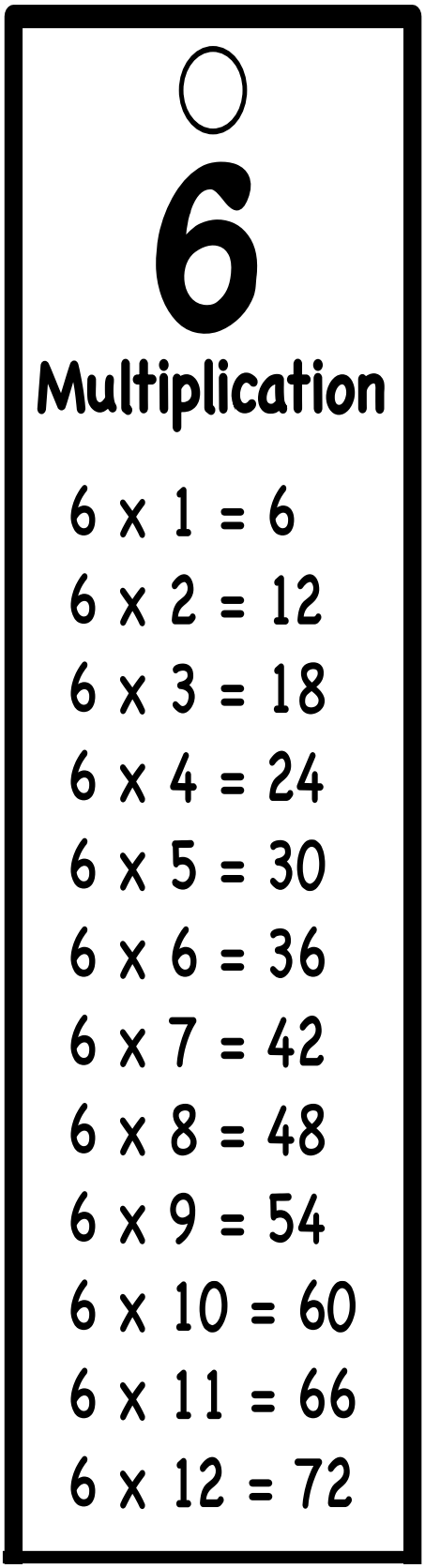
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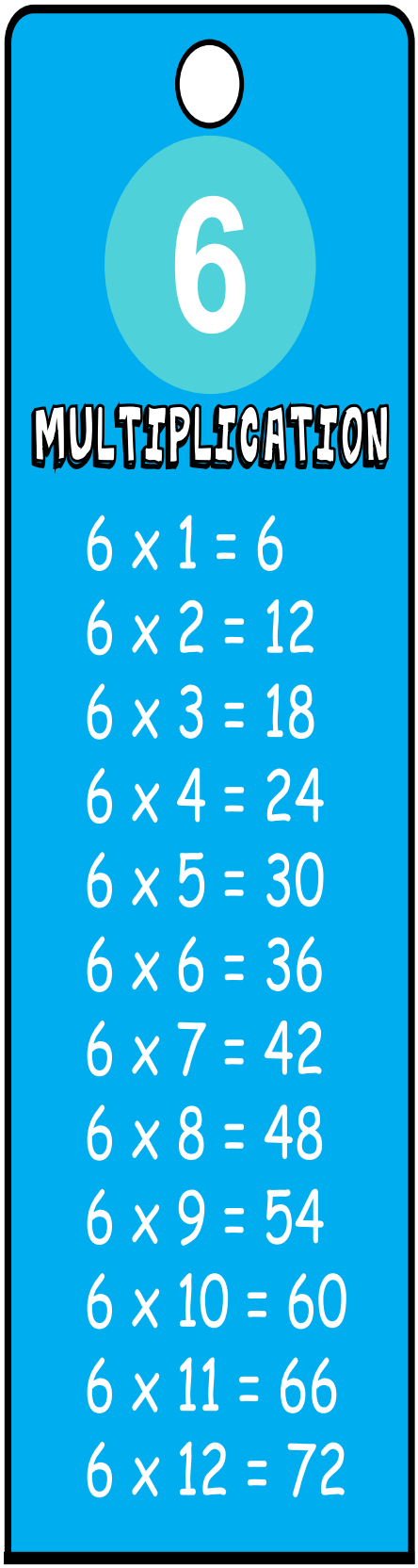
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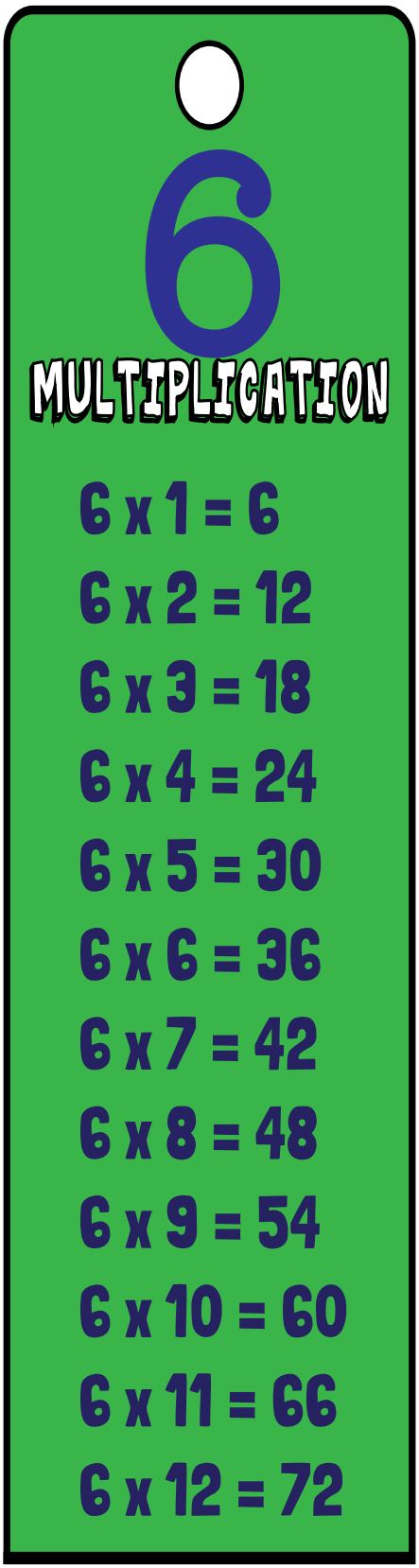
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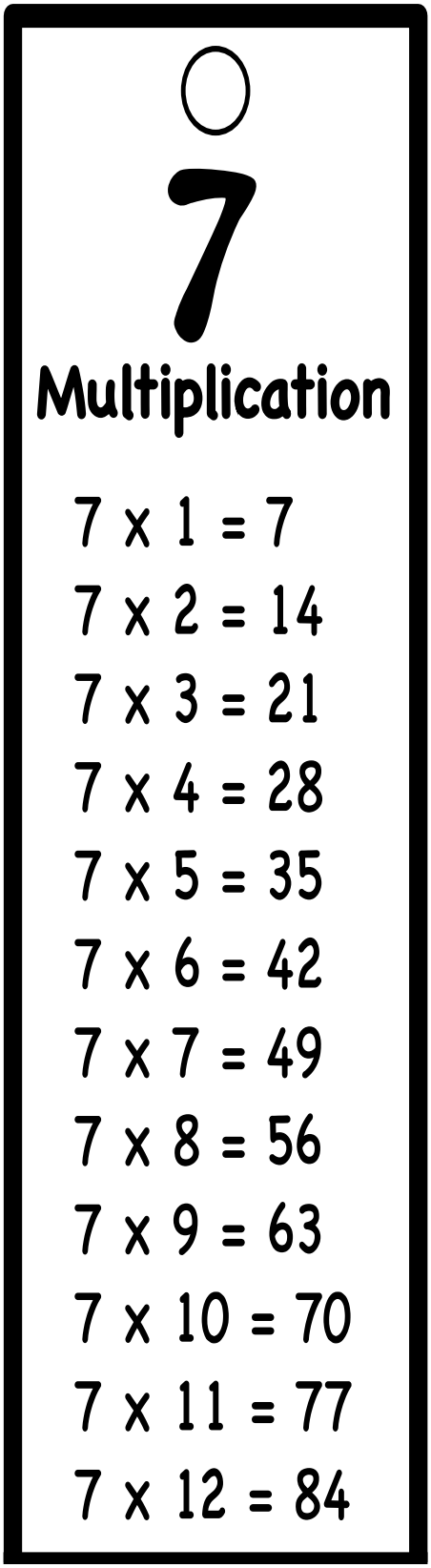
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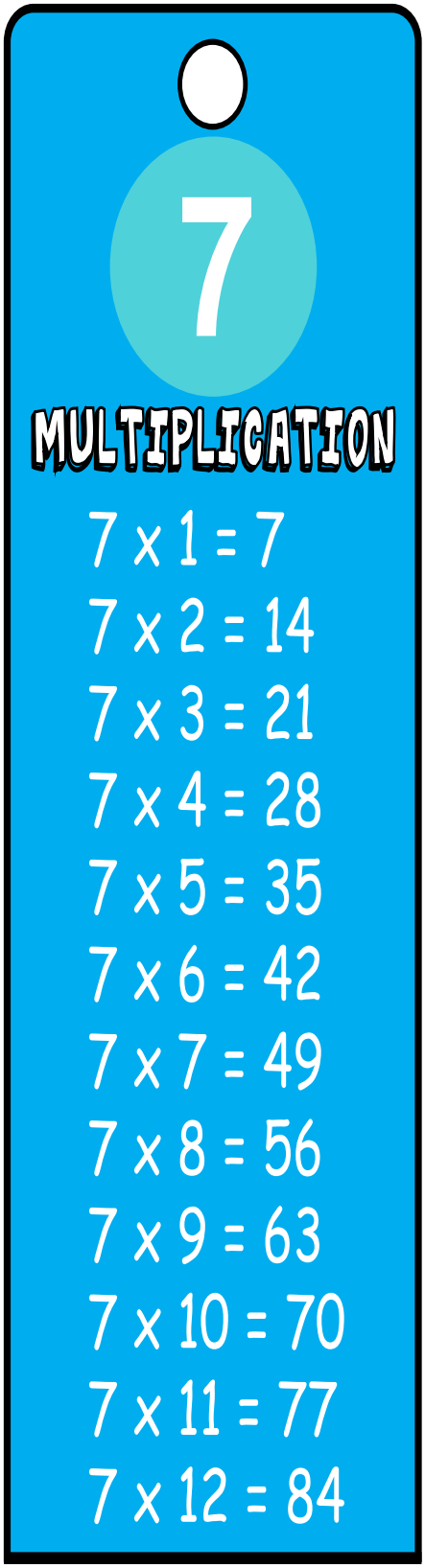
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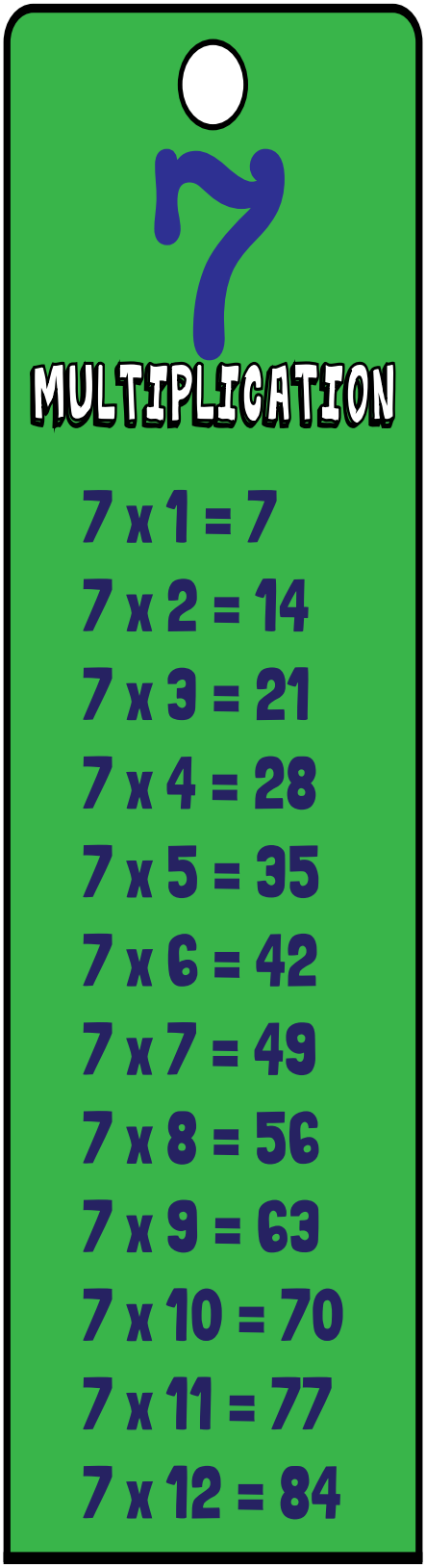
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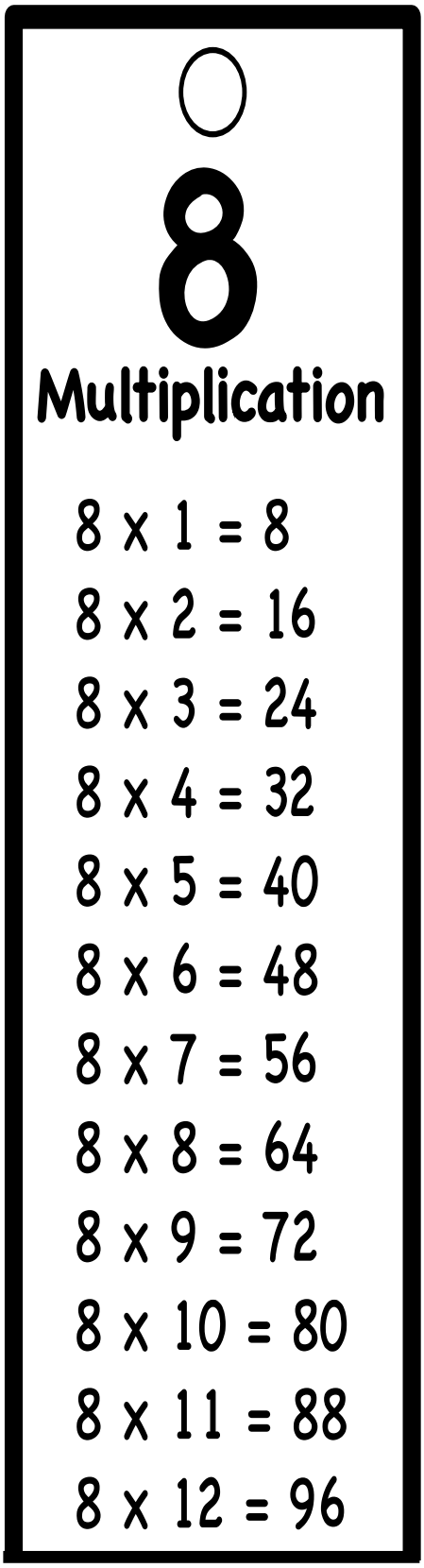
BOOKMARKS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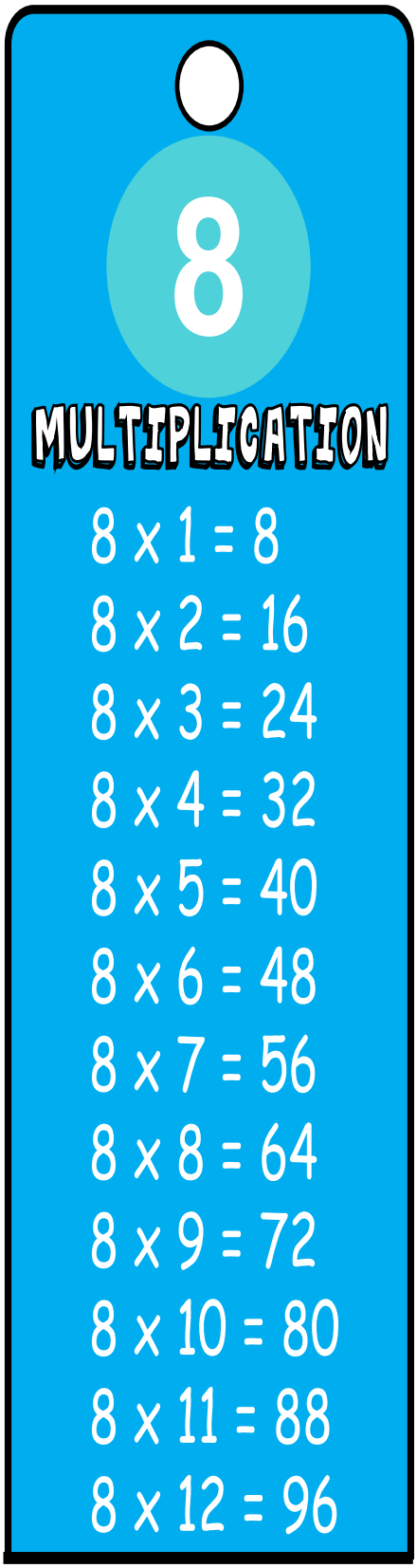
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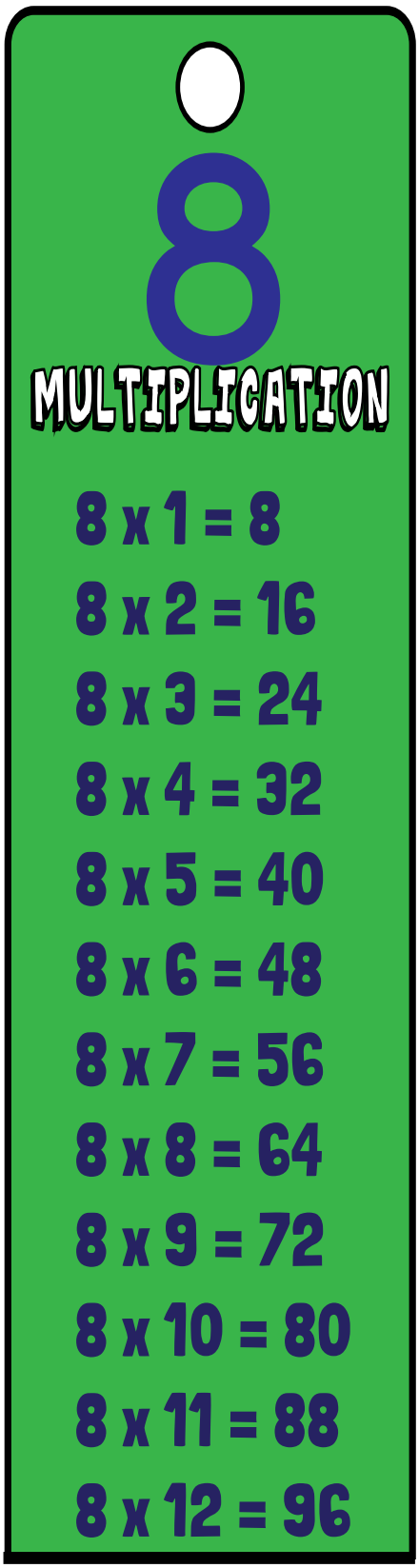
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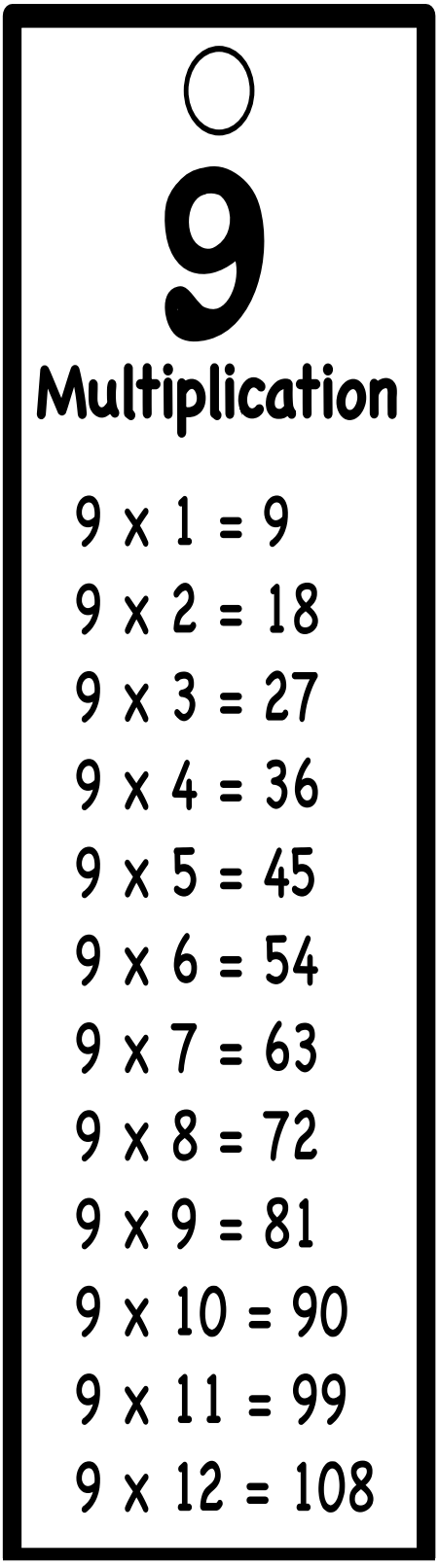
BOOKMARKS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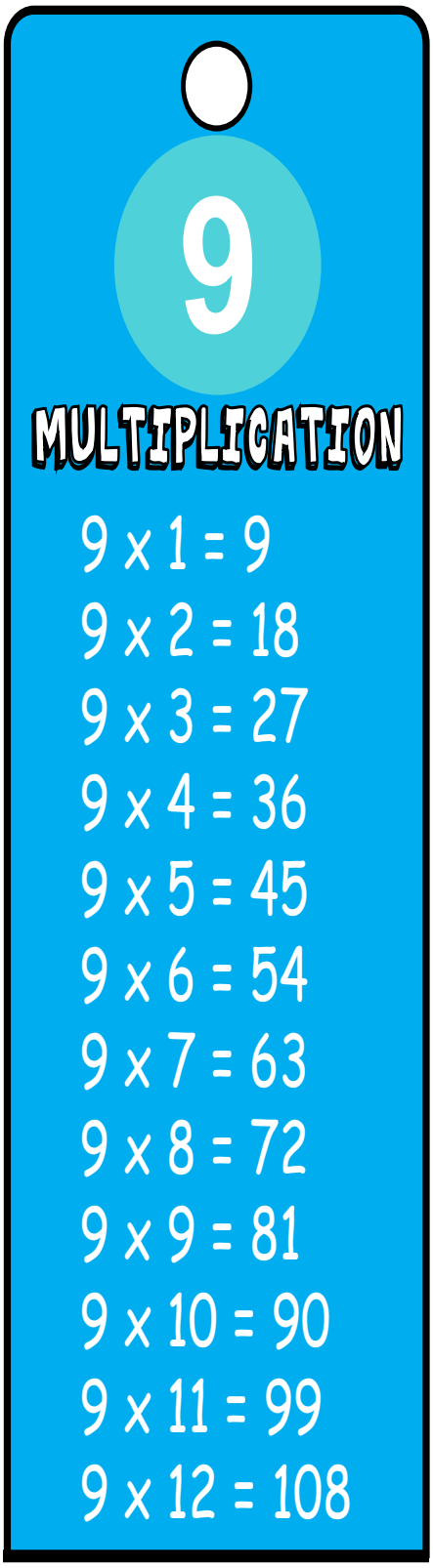
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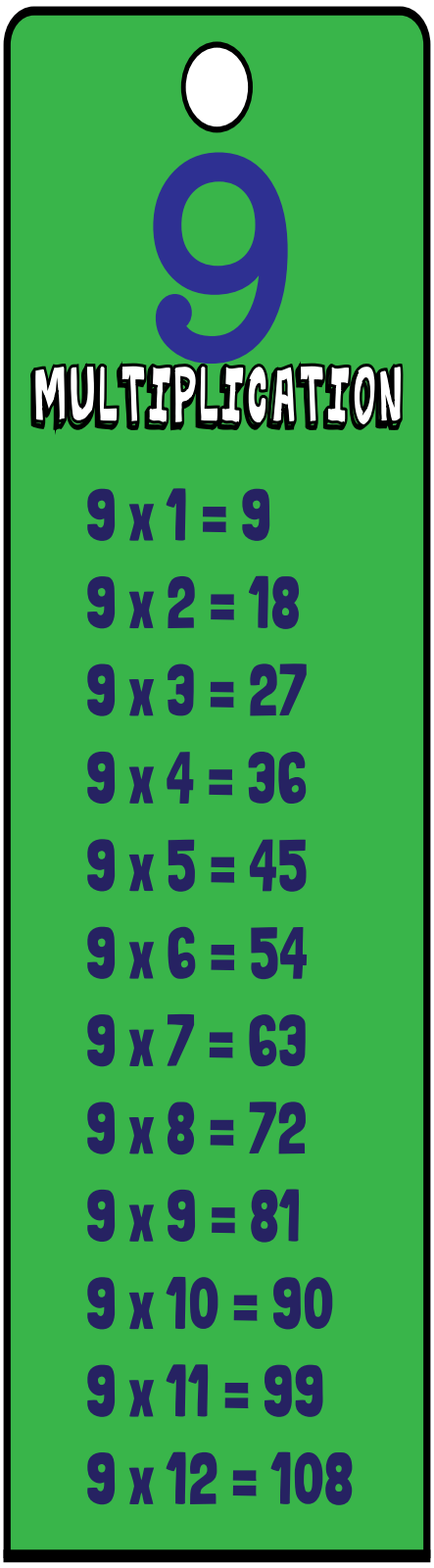
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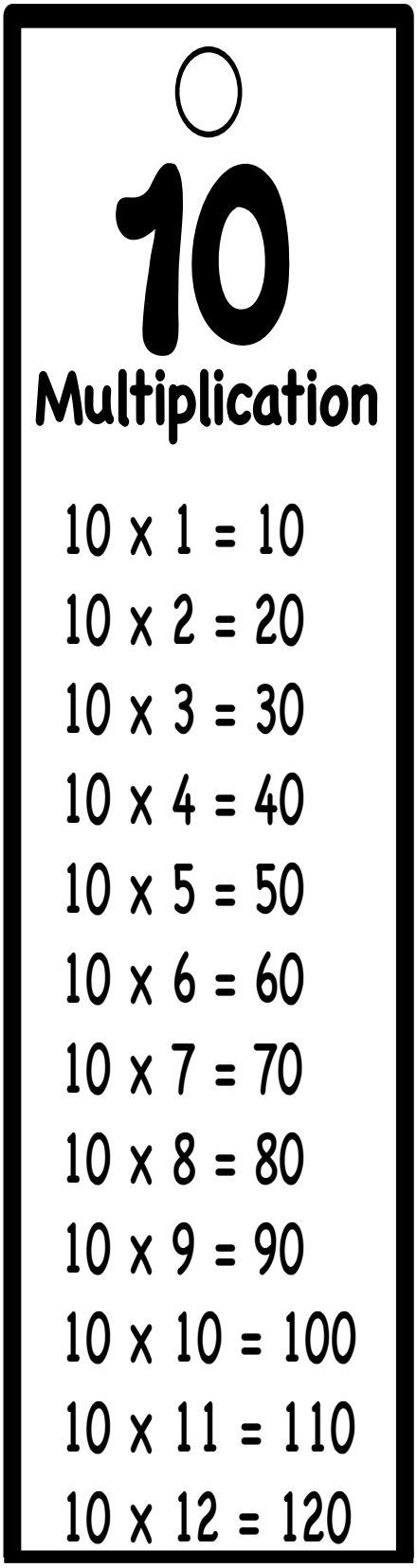
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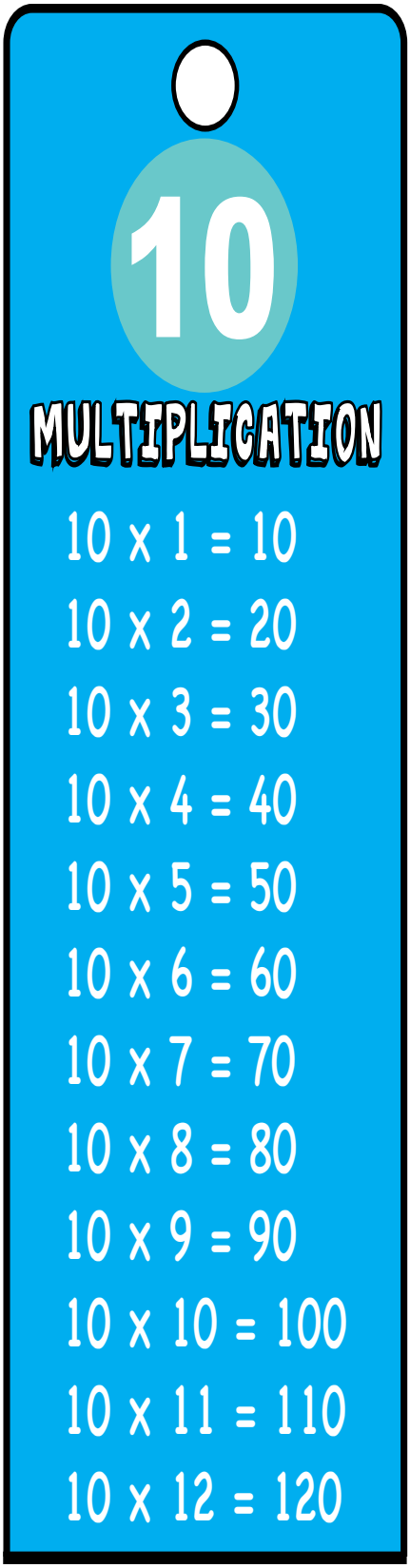
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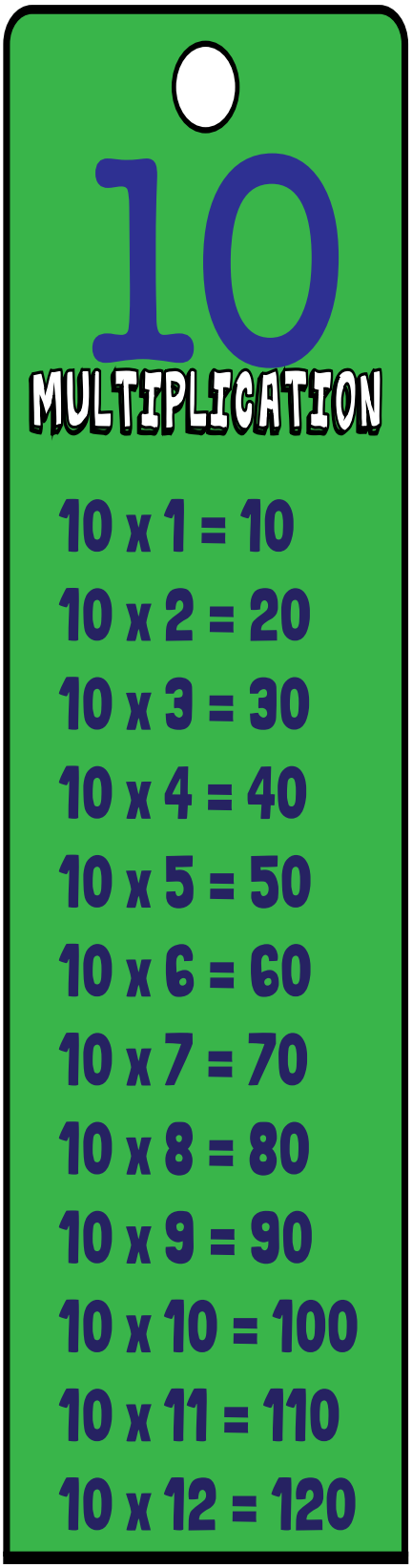
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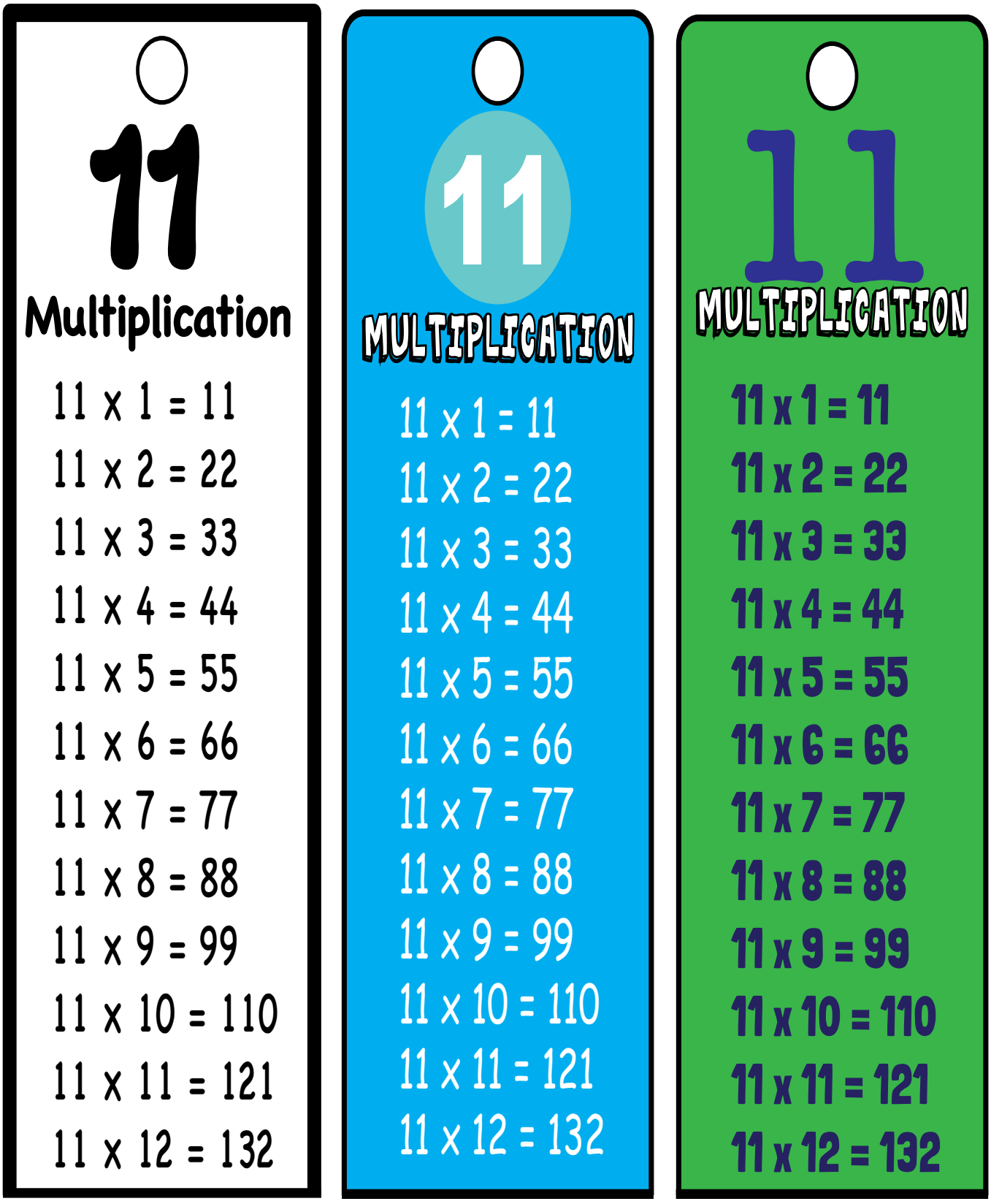
BOOKMARKS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BOOKMARKS

12 Multiplication

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12 x 9 = 108
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12 x 11 = 132
12 x 12 = 144

12 MULTIPLICATION

12 x 1 = 12
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12 x 7 = 84
12 x 8 = 96
12 x 9 = 108
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12 x 12 = 144

12 MULTIPLICATION

12 x 1 = 12
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12 x 8 = 96
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12 x 10 = 120
12 x 11 = 132
12 x 12 = 144

Math Fact Fluency Playground

See it, do it, learn it!

Math Fact Fluency Playground has one mission: Every student can learn and do math!

We work with teachers, schools, districts, regions and state educational agencies to help create a better math world. We believe that when teachers know more students soar! We believe that together we can change the world by creating research-based, engaging, student-friendly, classroom-tested math resources. Building on the research that says instruction is the linchpin and creative, evidence based resources are a powerful tool, we provide powerful pd and amazing resources to help you turn your math story around!

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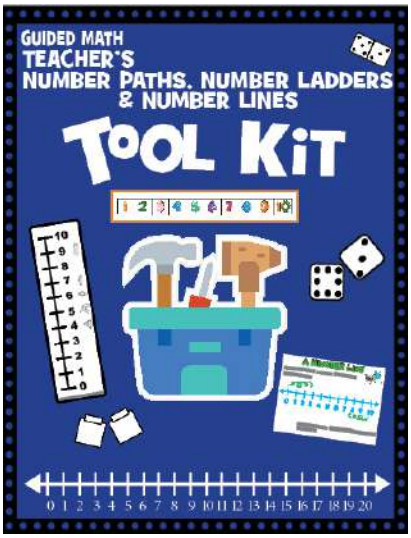

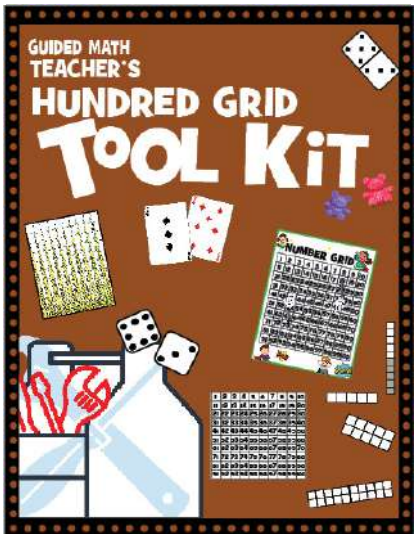

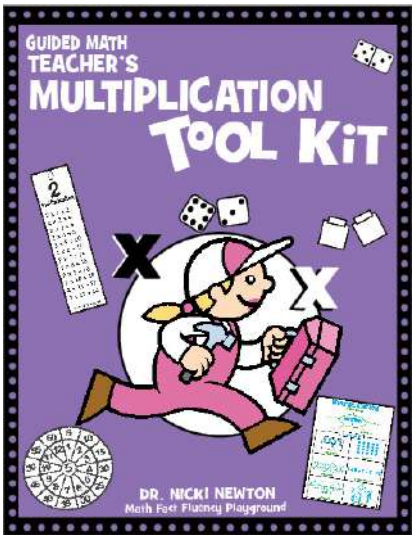

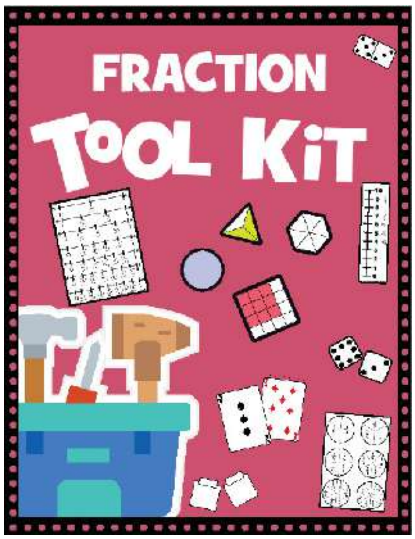

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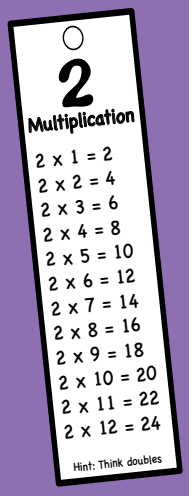
MATH FACT FLUENCY PLAYGROUND

GUIDED MATH TEACHER'S MULTIPLICATION TOOL KIT

Guided Math Templates help students to visualize and do the math.

This must-have book of resources provides teachers with the templates, tools, and blackline masters that they need to use to support children in learning multiplication. We explore many different models. Built on Dr. Nicki's work with students and teachers around the world, these research based, student friendly resources allow all students to access the knowledge and skills needed to learn and practice multiplication.



This powerful resource includes:

- Thinking Templates so that students can practice and model their thinking. These include arrays, equal groups, multiplication charts and number lines. Many of these templates are on the same page so students can solve one way and check another.
- Board Games that help students to practice their facts in fun and engaging ways. There are some premade games and other blank game templates so that the teacher can create differentiated game boards and also so that students can build their own games.
- Visual Flashcards that help students to practice their facts in fun and engaging ways. There are some premade games. There are also blank game templates so that the teacher can create differentiated game boards and so that students can create their own games.
- Story Mats and Paper Manipulatives can help students to act out different problems. These 2 tools help students to not only solve but also to tell word problems. As with the other resources in this book, they work on visualizing and acting out the problems.

The Guided Math Teacher's Multiplication Toolkit is the essential resource for teachers to prepare and deliver hands-on, visual lessons.