Week 1: Attributes of Shapes

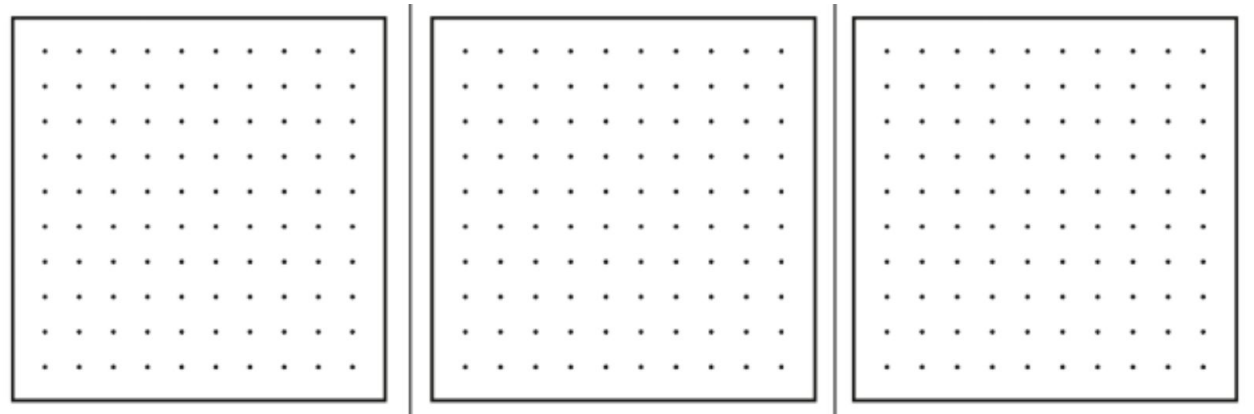
Fluency: Make sure you are practicing your multiplication facts for 5-10 minutes every day. There are some cards and ideas at the end of the math packet.

Comparing Quadrilaterals

1. On the geoboards below, draw three different quadrilaterals.
2. Use a ruler or a straightedge to draw straight sides.
3. Name each quadrilateral and describe its properties.
4. Share your work with someone at home. How are your quadrilaterals alike? How are they different? Use math vocabulary to explain your thinking.

Word Bank:

congruent sides	parallel sides	equal sides	right angles
acute angles	obtuse angles	equal angles	parallelogram
rhombus	rectangle	square	trapezoid



A Neighborhood or Nature Walk

If you are able, go on a neighborhood or nature walk and collect 24 sticks and 24 rocks or pebbles.

If you are not able to go on a walk, can you find items around your house to solve this problem? Maybe you have toothpicks or Q-tips and pasta or coins. If not, you can show your math thinking on a piece of paper.

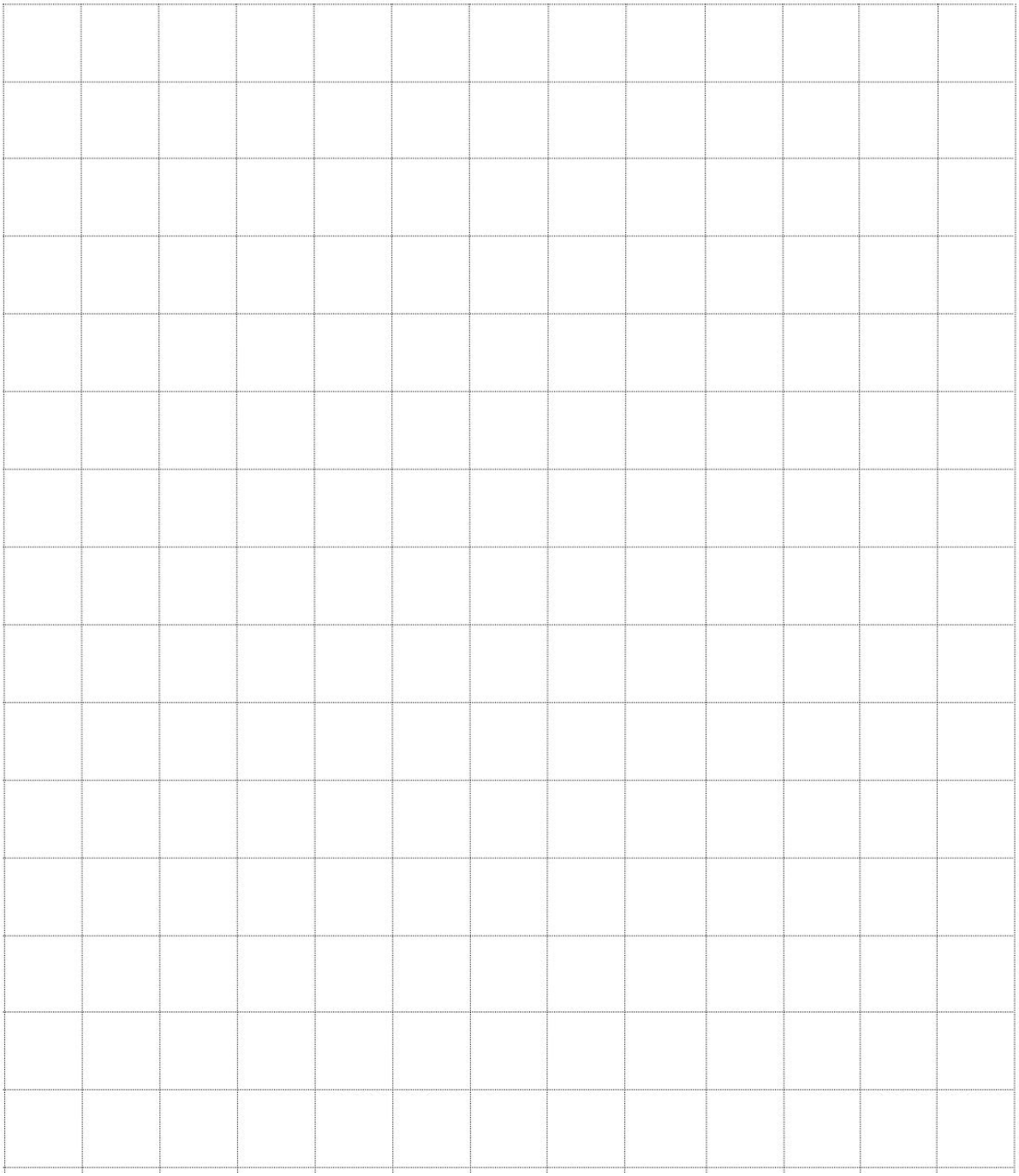
Students went on a walk. They collected 24 sticks and 24 rocks or pebbles to make shapes. The students use one rock or pebble for each vertice in a shape. The students use one stick for each side in a shape. The students think they can make at least four different quadrilaterals using the 24 sticks and 24 rocks. What could the four different quadrilaterals look like? Name each quadrilateral and list two attributes of each. Can you make different quadrilaterals? Show all your mathematical thinking.

Either draw or take a picture of your work. 3.G.1

Design a Rabbit Home

1. You have 18 feet of fence to solve this problem to build a rectangular home on the grass for a rabbit. Show all the different possible designs you could make for the rabbit home.
2. How many different rectangular shaped homes did you make? Which design would give the rabbit the largest grass area? Show all your mathematical thinking.
3. What is the difference between the smallest and largest possible grass areas you made?

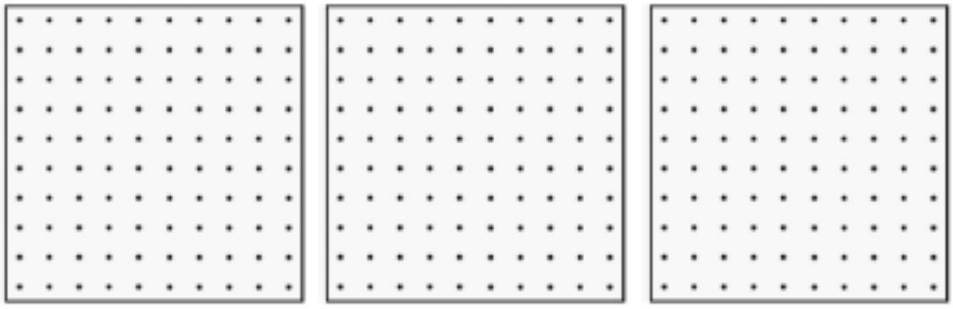
3.MD.8



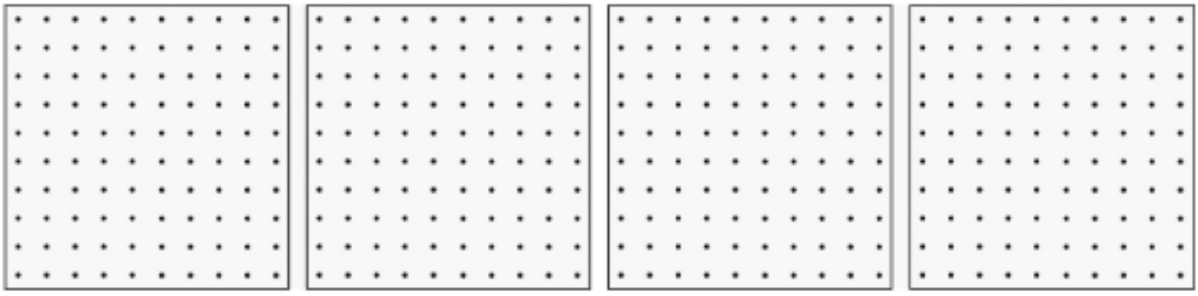
Area and Perimeter

1. How many different rectangles can you create on the geoboards with a perimeter of 12 units? Use a ruler or straightedge to draw your rectangles.
2. Order your rectangles from least to greatest area. Record the perimeter, length, width, and area of each rectangle in the table.

Rectangle	Length	Width	Perimeter	Area
A			12	
B			12	
C				



3. Repeat steps 1 and 2 with a perimeter of 16 units. Record your data in a table. How can you be sure that you have found all possible rectangles with a perimeter of 16 units? Explain your thinking.

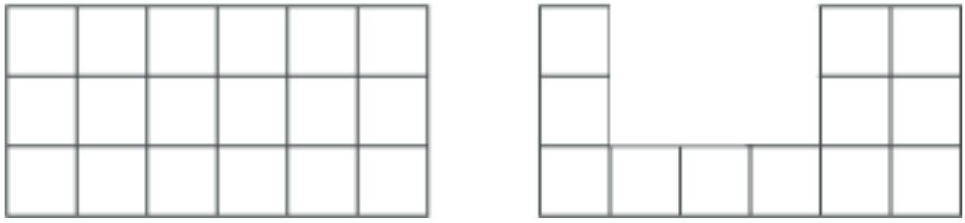


Rectangle	Length	Width	Perimeter	Area
A			16	
B			16	
C				

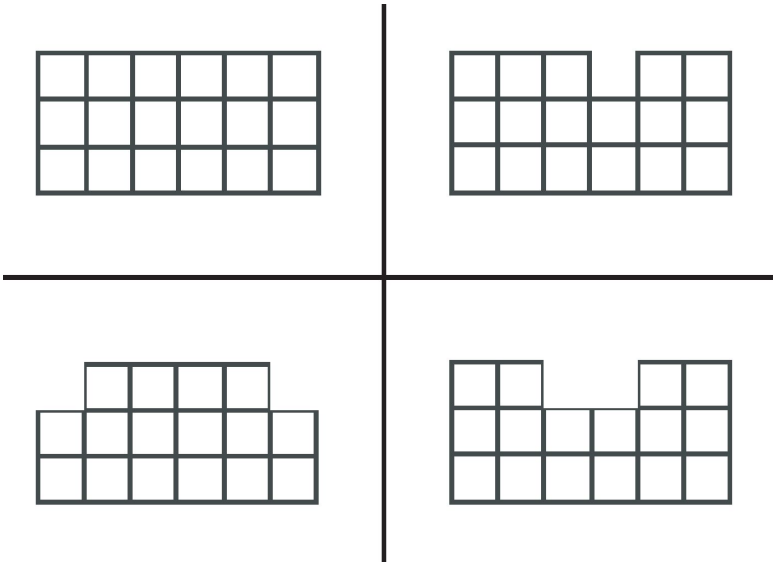
4. Based on your data can you make a generalization (a statement you can make based on the data in the tables, maybe it's a pattern) stating how to get the greatest area for a given perimeter?

Area and Perimeter Challenge

1. What can you say about these two shapes?



2. What is the area of each one?
3. What is the perimeter?
4. What can you say about these shapes?



5. Can you draw a shape with an area that is numerically equal to the perimeter? How many can you draw?

6. Can you draw a shape with a perimeter that is numerically twice the area?

7. How many can you draw?

8. Can you make the area of a shape go up but the perimeter go down?

9. Can you make the perimeter of a shape go up but the area go down?

Week 2: Place value

Sums and Differences

1. Turn over six cards **(cards are included at the end of the math section of this packet)** to make 2 three digit numbers that will make the largest sum.
2. **Estimate** the sum between the two numbers by rounding each number to the nearest hundred and adding mentally.
3. Next, add the two numbers together.
4. Was your estimate greater than or less than your answer?
5. Then, arrange the six cards to make 2 three digit numbers that will make the smallest difference.
6. **Estimate** the difference between the two numbers by rounding each number to the nearest hundred and subtracting mentally.
7. Finally, subtract the two numbers.
8. Was your estimate greater than or less than your answer?

3.NBT.1

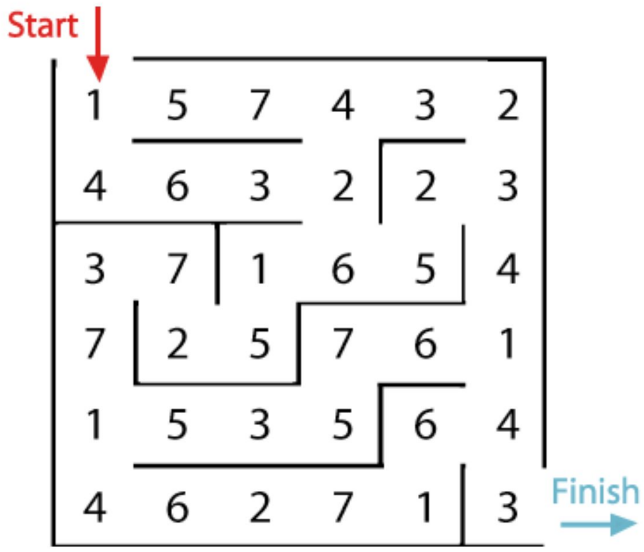
Insects in a Jar

Ben and Sara have four glass jars. Ben and Sara have one hour and fifteen minutes to collect four different types of insects. Ben and Sara will put each type of insect in a glass jar. Ben and Sara will round the number of each type of insect collected to the nearest ten and let any extra insects go. Ben and Sara start collecting insects at one o'clock in the afternoon. They collect 23 ants, 12 butterflies, 10 beetles and 14 grasshoppers. What time do Ben and Sara stop catching insects? How many insects do Ben and Sara let go from each jar? Show all your mathematical thinking.

3.NBT.1

Maze to 100

In this maze, there are numbers throughout. To win, you go through adding all the numbers that you pass. You may not go through any number more than once. Can you find a way in which numbers can add to exactly 100?



Can you make up your own maze? Can you get it to add to 1,000?

3.NBT.2

Addition Subtraction Practice Board

Choose a line of four problems (vertical, horizontal, or diagonal). Solve each problem. Repeat with other lines on different days.

243 + 233	478 - 255	431 + 316	549 - 236
801 - 556	332 + 56	967 - 756	442 + 449
579 + 68	686 - 239	399 + 257	558 - 369
645 - 256	474 + 347	252 - 164	524 + 288

3.NBT.2

Henry's Lego Structure

Henry wants to build a structure with his new Lego set. The Lego set contains five hundred Legos. The structure will be three levels high. The first level is made of twenty-seven Legos. Henry uses twice as many Legos for the second level as for the first. Henry uses three times as many Legos for the third level as for the second level. How many Legos does Henry use to build his structure with three levels? If this pattern continues, does Henry have enough Legos in his new set to build a fourth level on his structure? Show all your mathematical thinking.

3.OA.8

Story Problem Choice Board

Choose **4** problems to solve. Write an equation with an unknown symbol for each problem. Draw a quick math diagram to show your thinking. Answer the question in a complete sentence.

The farmer sold $145 worth of pumpkins and $273 worth of carrots at the market. Before going home she bought a ladder for $89. How much money did she have left?	For an afternoon snack, Juan ate 3 bunches of grapes. Each bunch had 9 grapes. Jenna ate 15 grapes. Who ate more grapes? How many more?	A grocery store worker packed 3 boxes of 6 apples and 6 boxes of 3 bananas. How many pieces of fruit did the worker pack altogether?
Mr. Mendoza had 9 boxes. He packed 8 oranges in each box. He had 4 oranges left after packing. How many oranges did he have altogether?	Write your own 2 step story problem. Make an answer key. Can you have someone at home solve your problem?	The farmer milks his cows twice a day. On Monday morning, he got 365 liters of milk. On Monday afternoon, he got 390 liters of milk. If he sold 565 liters to the ice cream factory, how many liters does the farmer have left?

3.OA.8

Fluency Practice: Please find 5-10 minutes each day to practice your multiplication facts. In each packet, we will give ideas and resources for different ways to practice. Here are mini multiplication grids that you can use to help when you get stuck on a fact. If you feel confident with certain facts, you can use a pencil, crayon, or marker to shade in those facts on one of the tables.

Mini-Multiplication Tables

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

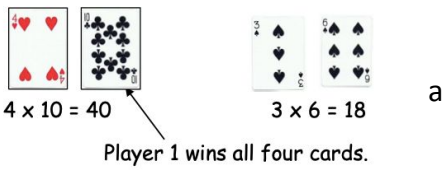
X	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	10	12	14	16	18
3	3	6	9	12	15	18	21	24	27
4	4	8	12	16	20	24	28	32	36
5	5	10	15	20	25	30	35	40	45
6	6	12	18	24	30	36	42	48	54
7	7	14	21	28	35	42	49	56	63
8	8	16	24	32	40	48	56	64	72
9	9	18	27	36	45	54	63	72	81

If you do not have a deck of cards at home, please cut up the ones below and keep them in a safe place. We will give you math games to play while you are home. One idea is to play multiplication war.

Multiplication Top-It

Materials: Deck of cards, face cards worth ten, Ace worth 1.

How to Play: Each player turns over two cards and multiplies to get product. The player with the largest product wins all the cards. Continue until all the cards are gone.



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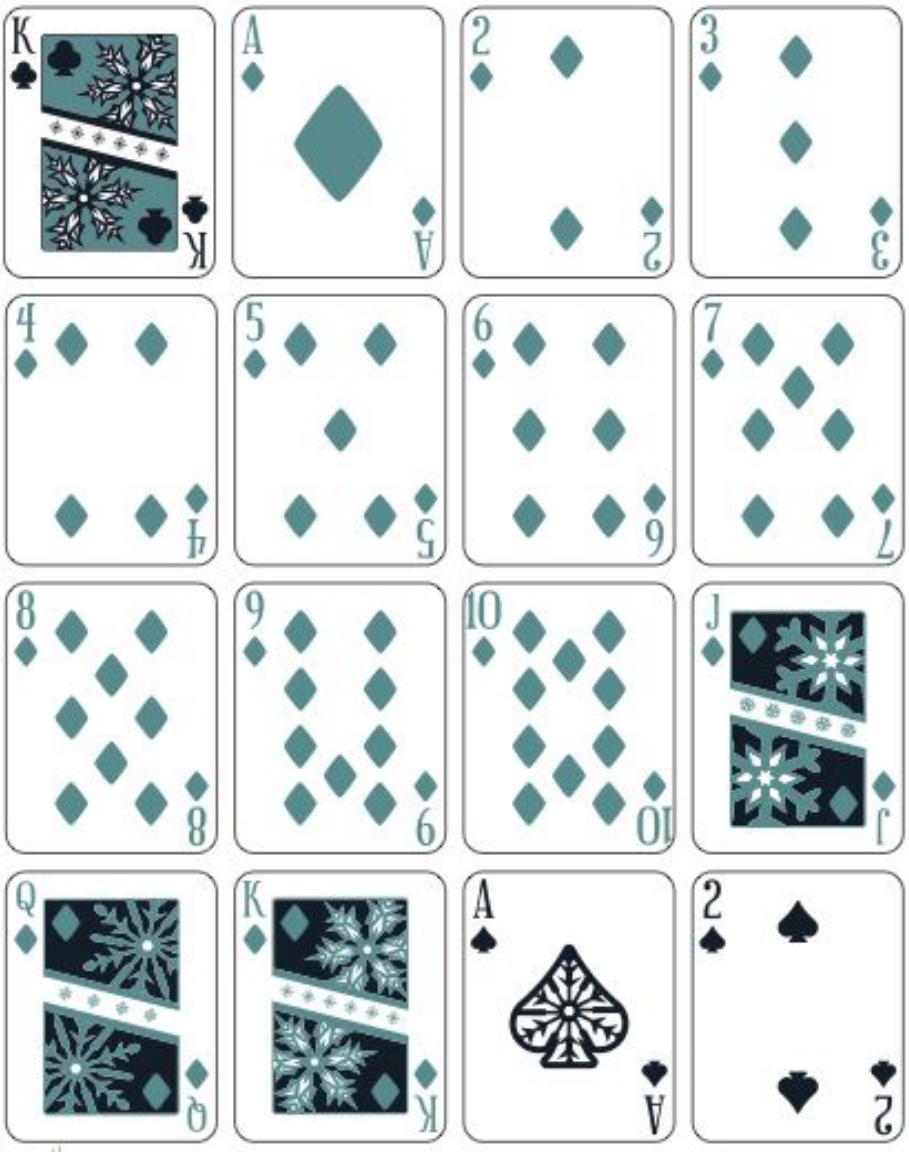
I Spy

How to Play: Arrange cards in rows. Player 1 secretly chooses two neighboring cards and multiplies them together. He or she then says, “I spy with my little eye, two cards with the product of ___.” Player 2 finds and picks up the neighboring pair or pairs with the correct product. If player 2 misses any other pairs that make the product, player 1 can claim them. The player with the most cards wins!

Remote Learning: TPS Mathematics, 3rd Grade, April 21-May 1



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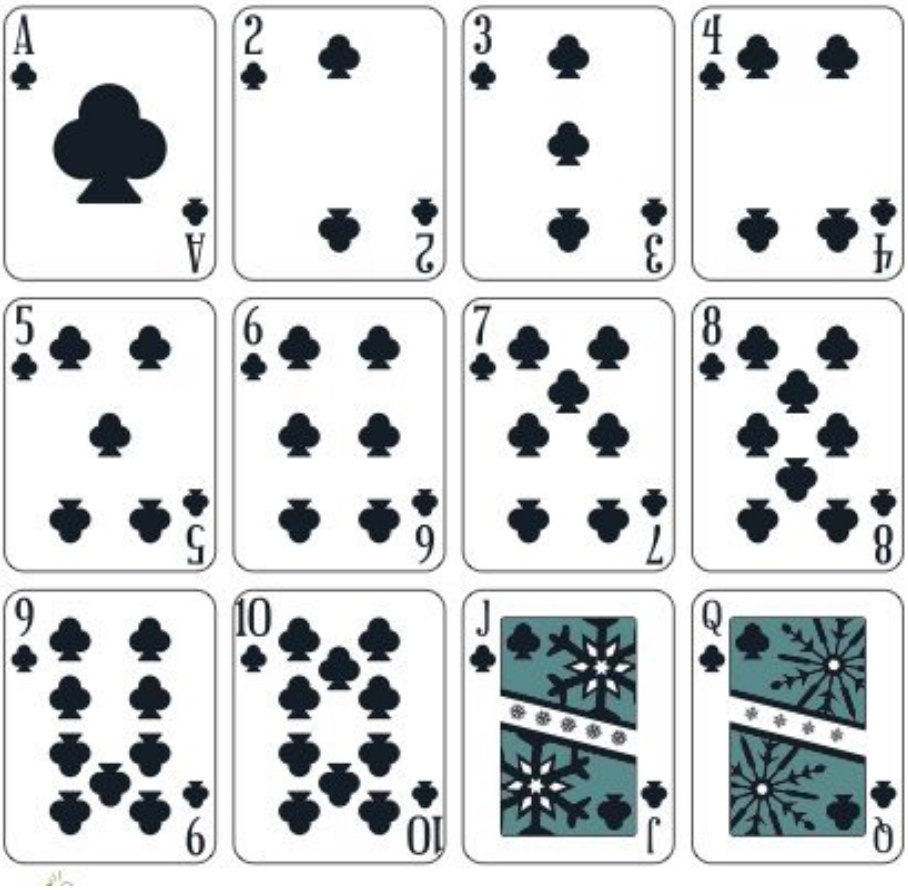
A
2
3
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J
Q

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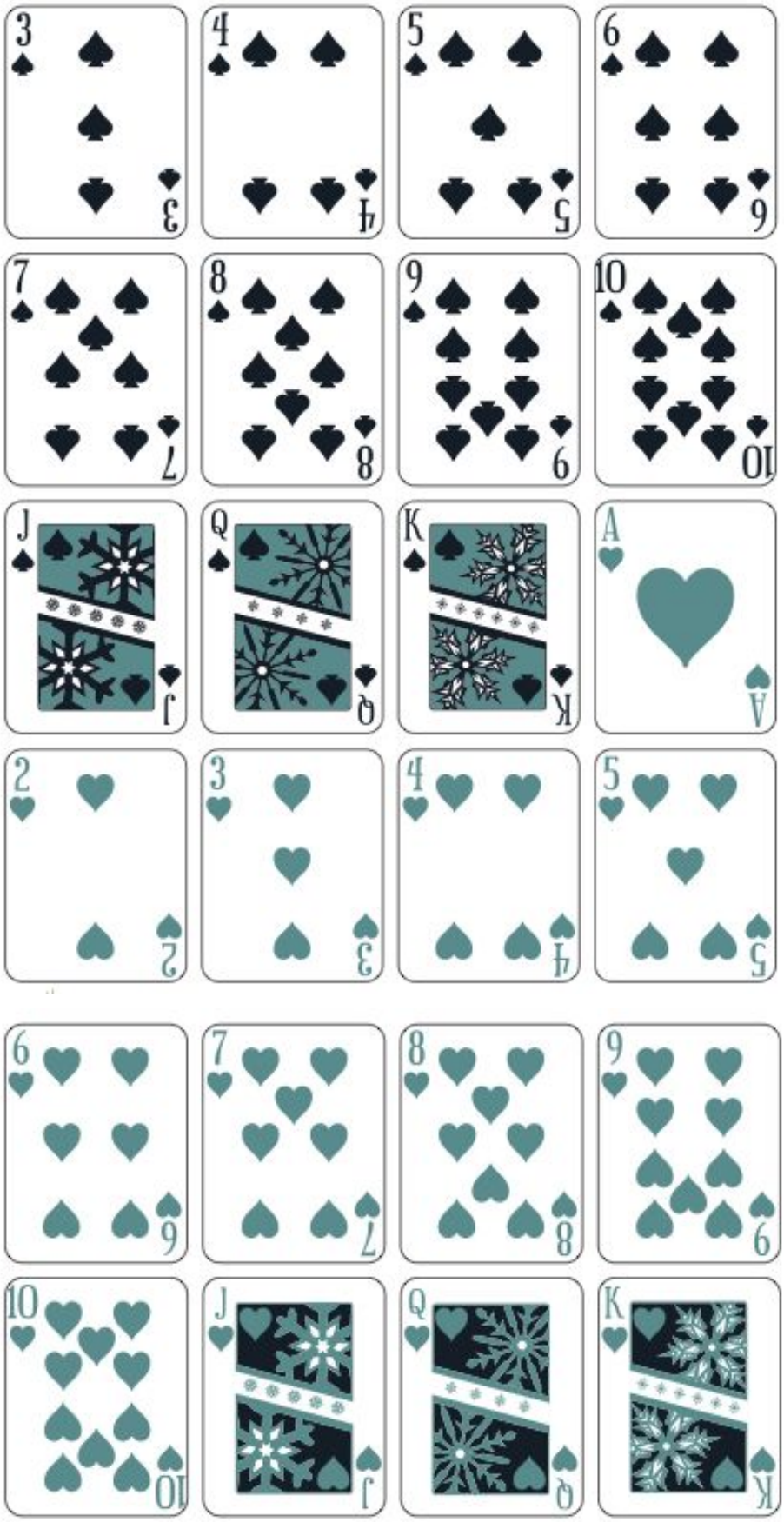

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