

Early Elementary Week 9: Math Dominoes

1	Joe is painting the word OCTAHEDRON on a poster. Each day he paints one letter. He painted the first letter on a Wednesday. What day of the week will it be when he paints the last letter?	2 2
2	Sarah has \$4 to spend on school supplies. She needs to buy 3 notebooks, which are \$0.90 each, and spends the rest of the money of pencils which cost \$0.20 each. What is the most number of pencils she can buy?	3 1
3	4 boys build 4 towers in 4 days. How many towers will 12 boys build in 12 days?	5 2

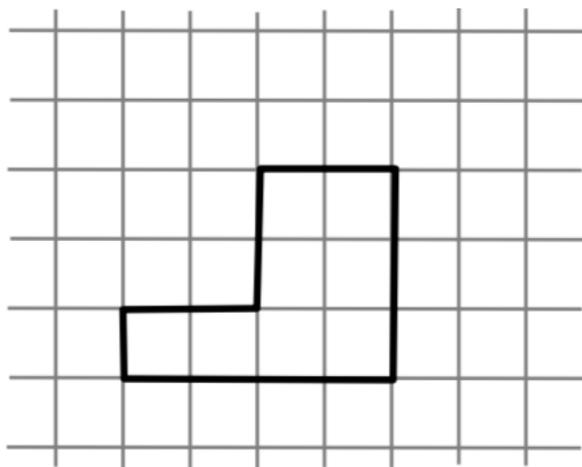
4

Matthew has 3 more oranges than Dominic, and Jerry has 7 more than Matthew. How many oranges should Jerry give to Dominic so that they have the same number of oranges?

4|2

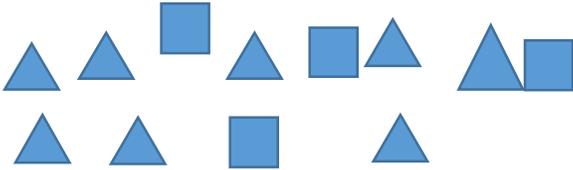
5

Draw lines to cut the figure into two equal parts (equal in shape and size). Cut along the gridlines only. (*Do not draw on this card – copy the picture first.*)



4|1

6	<p>Sue raises chickens and has boxes that hold 6 eggs each and boxes that hold 12 eggs each. What is the least number of boxes required to store 66 eggs?</p>	$3 3$
7	<p>You forgot your lock combination! The combination uses the digits 0-9, and you know that none of the numbers repeat. How many different combinations of four digits are there to try?</p>  <p><small>www.shutterstock.com - 77650483</small></p>	$5 3$
8	<p>Josh rides an elevator up to the 10th floor. Then he takes papers down to the 4th floor. He then takes the elevator to the 6th floor to meet Chloe. They return to the 1st floor to go to lunch.</p> <p>It takes 1 second to go from any floor to the next floor (up or down) in the elevator.</p> <p>(a) How much time did Chloe spend in the elevator? (b) How much time did Josh spend in the elevator?</p>	$8 2$

<p>9</p>	<p>How many triangles have to be changed into squares so that there is the same number of squares and triangles?</p> 	<p>0 2</p>
<p>10</p>	<p>Kate and Emma were sitting in the same row on a bus. Kate was seated in the 9th row from the front and Emma was seated in the 13th row from the back. How many rows of seats were there on the bus?</p>	<p>5 1</p>
<p>11</p>	<p>In a certain game show, each participant begins the game with 10 points and has to answer 10 questions. For each correct answer, the participant gains 1 point. For each incorrect answer, the participant loses 1 point. If Bob had 14 points by the end of the game show, how many questions did he answer correctly?</p>	<p>7 2</p>

Given the following table, please write the rule for this function machine using the form we learned in class. (“y=...”)

x	y
0	0
1	1
3	9
5	25

14

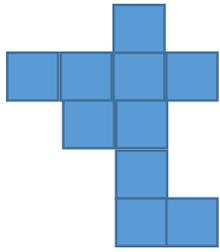
4|4

John and Sarah are staying in a hotel. Sarah’s room is 12 floors above John’s room. John decides to visit Sarah’s room and he takes the stairs up from his room to Sarah’s room. Half- way up, he is on the 8th floor. On what floor is Sarah’s room?

15

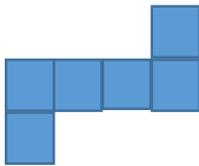
3|4

Which shape does not fit inside the one shown below?
(Hint: they can rotate)

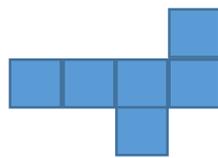


16

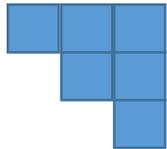
a.



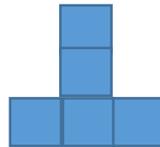
c.



b.



d.



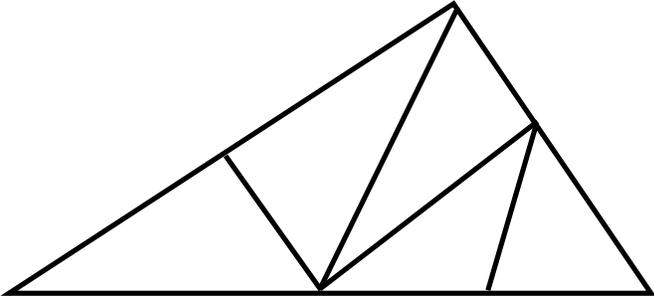
2|3

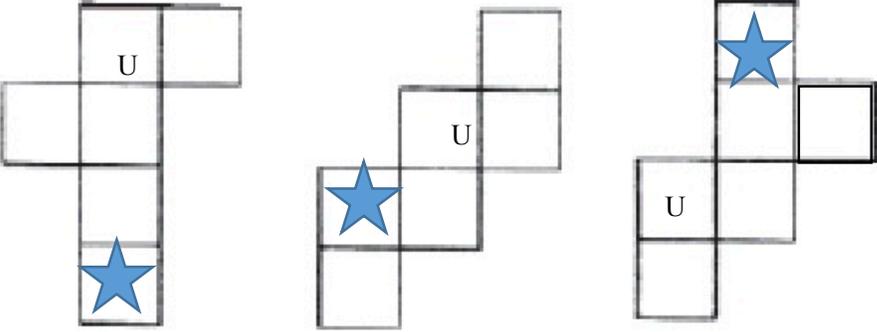
Given the following table, please write the rule for this function machine using the form we learned in class. (“y=...”)

x	y
1	2
2	7
3	12
4	17

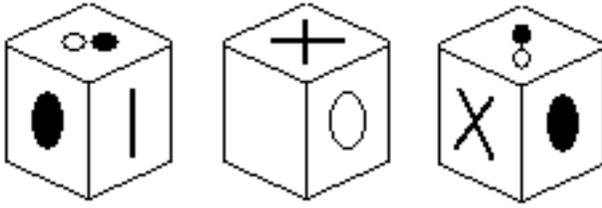
17

8|1

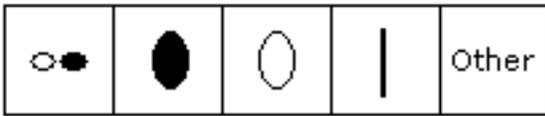
18	A log that is 12 meters long has to be cut into pieces that are each 3 meters. How many cuts will be made?	0 4
19	Janelle bought 6 bags of flour, each containing 3 lbs of flour. She needs 2 lbs to make 1 pie. How many pies will she be able to make using this flour?	1 2
20	How many triangles are there in the following image? 	6 4

<p>21</p>	<p>Will these nets fold up into a cube? If they do, write the name of the face indicated by the star. The upward face is already labeled.</p> 	<p>5 4</p>
<p>22</p>	<p>Andy was hiking in the mountains for 3 days. On the first day, he hiked twice as much as on the second day. After resting a lot on the second day, he hiked on the third day as much as he did on the first and second days combined. All together, he hiked 36 km. How many kilometers did he hike on each of the days?</p>	<p>1 6</p>
<p>23</p>	<p>Katherine is trying to figure out how many different lunches she can make from the items in her refrigerator: 3 types of fruit, 2 types of sandwiches, and 5 types of drinks. Her lunch must have 1 fruit, 1 sandwich, and 1 drink. How many different lunches can she make?</p>	<p>2 5</p>

24 Three views of the same cube are shown below. What symbol is the opposite of X?



Answers



A B C D E

9|1

25 Miguel is baking cookies with his sister Ashley. He puts 5 red, 5 green, and 5 blue M&M's in a bag and lets Ashley pick some out to put on the cookies.

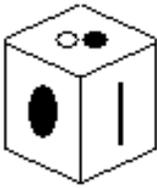
(a) How many M&M's does Ashley need to take out to make sure she picks at least 3 that are the same color?

(b) How many M&M's does Ashley need to take out to make sure she picks at least 3 that are green?

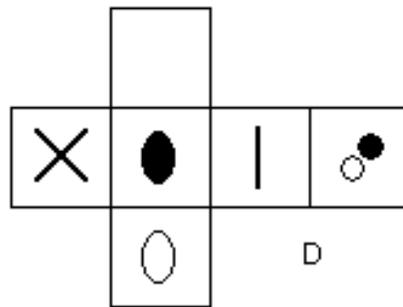
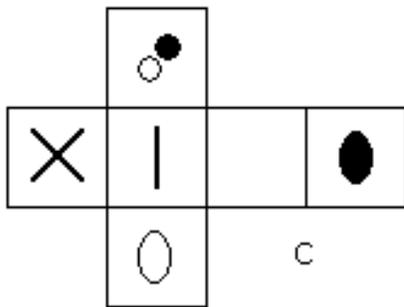
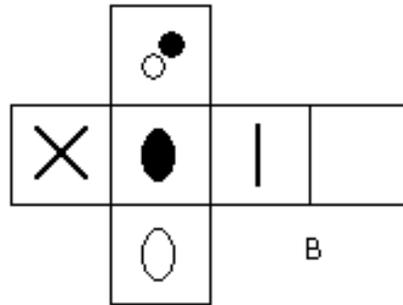
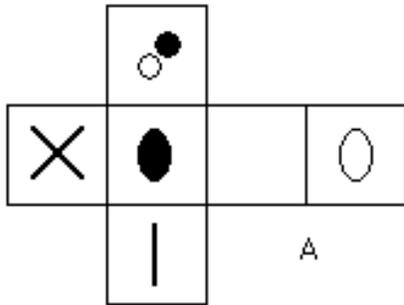
4|5

Which of these nets, when folded, make the cube shown below?

Completed Cube



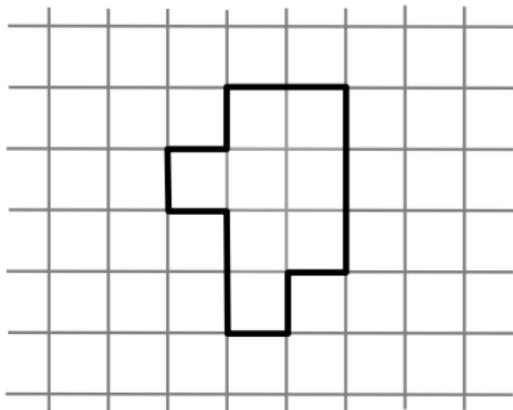
Patterns



26

2|6

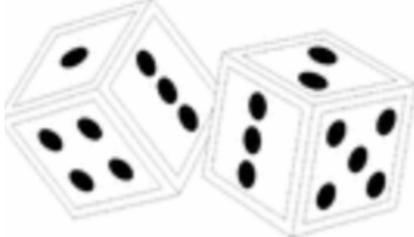
Draw lines to cut the shape into two equal parts (equal in shape and size). Cut along the gridlines only. (*Do not draw on this card – copy the picture first.*)



27

6|2

28	<p>Insert several plus and minus signs in such a way as to get a correct equality.</p> $5 \ 4 \ 3 \ 2 \ 1 = 3$	6 0
29	<p>Who is right? Ben: “The largest number possible can be written using only digit 9.” Emma: “The largest number possible cannot be written.” Rachel: “The largest number possible ends with 0.”</p>	2 1
30	<p>Bella wrote down all the numbers from 1 to 45. How many times did she write the digit 3?</p>	7 3

31	<p>Benny the Bear Cub weighs more than Lenny the Lion Cub, and Tommy the Tiger Cub weighs less than Chesley the Chimpanzee Cub. Chesley is not the heaviest of all four animals. Can you tell who is the heaviest?</p>	1 1
32	<p>Five pencils of five different colors (red, green, blue, yellow, white) are placed in a row. It is known that:</p> <ul style="list-style-type: none"> • The red pencil is next only to the blue pencil. • The blue pencil is between the red and white pencils. <p>What color is the pencil in the center?</p> 	6 1
33	<p>Jerry rolls three six-sided dice. The dice show 3 different numbers, and the sum of these numbers is equal to 7. How many of Jerry's dice show 1?</p> 	6 3

34	<p>There are five flowers in the vase – all roses and carnations.</p> <p>Out of any two flowers, at least one is a rose. How many carnations are there in the vase?</p>	0 0
35	<p>Baby Samuel is learning to walk. Each day, he makes as many steps as he made during the two previous days together. (For example, if he made 4 steps yesterday and 6 steps today, then he'll walk 10 steps tomorrow.)</p> <p>Baby Samuel started walking on Monday. On Thursday, he made 9 steps, and on Friday, he made 15 steps. How many steps did he make on the first day (Monday)?</p>	2 8
36	<p>Zarrina needs \$4 more to buy 4 ice creams. However, if she buys 2 ice creams, she will have \$2 left. How much does one ice cream cost?</p>	0 1

37 Draw what the projection from the left side of the figure would look like.

8|0

38 Use the Pigpen Cipher to decode the following message:

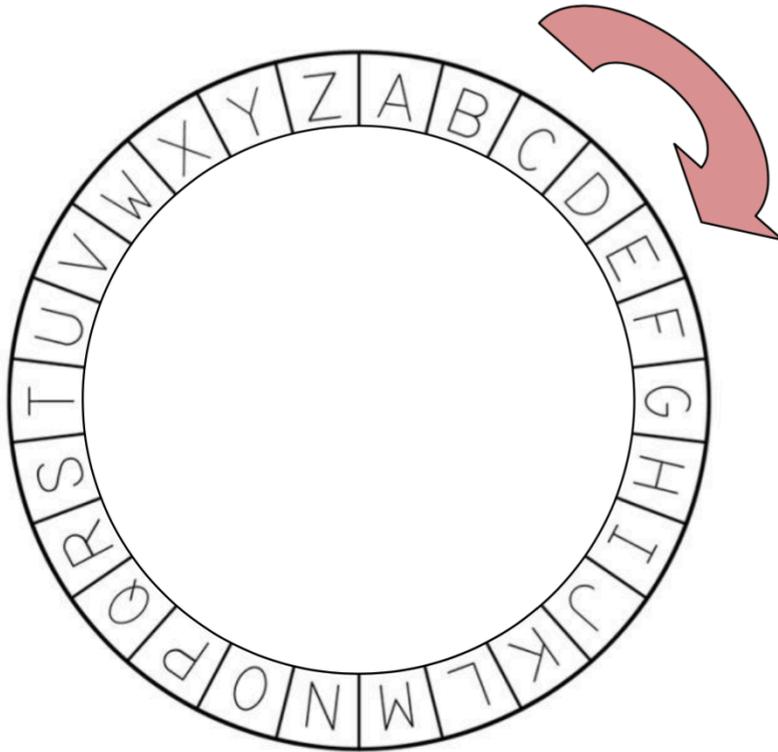
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>D</td><td>E</td><td>F</td></tr> <tr><td>G</td><td>H</td><td>I</td></tr> </table>	A	B	C	D	E	F	G	H	I	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>J</td></tr> <tr><td>K</td><td>L</td></tr> <tr><td>M</td></tr> </table>	J	K	L	M
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<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>N</td><td>O</td><td>P</td></tr> <tr><td>Q</td><td>R</td><td>S</td></tr> <tr><td>T</td><td>U</td><td>V</td></tr> </table>	N	O	P	Q	R	S	T	U	V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>W</td></tr> <tr><td>X</td><td>Y</td></tr> <tr><td>Z</td></tr> </table>	W	X	Y	Z
N	O	P												
Q	R	S												
T	U	V												
W														
X	Y													
Z														

2|0

39 Encrypt the word "SNOWMAN" with the shift of 5 using the Caesar Cipher.

3|5

Decode "KDOI PRRQ" with a shift of 3 using the Caesar Cipher.



40

2|4

Encode the word "MANGO" using the Greek Square Cipher.

	1	2	3	4	5
1	a	b	c	d	e
2	f	g	h	i/j	k
3	l	m	n	o	p
4	q	r	s	t	u
5	v	w	x	y	z

41

1|3

Encode the word "CHOCOLATE" using the Greek Square Cipher.

	1	2	3	4	5
1	a	b	c	d	e
2	f	g	h	i/j	k
3	l	m	n	o	p
4	q	r	s	t	u
5	v	w	x	y	z

42

1|4

Tyler has three different plants. How many ways can he arrange them in a line on his windowsill if each one is different?



43

3|0

What is the name of the following figure?



44

1|0

45	<p>One bacteria was placed in a dish. Every second, each bacteria divides into 2. How many bacteria will there be in the dish after 6 seconds? (Hint: Draw a picture.)</p>	7 1
46	<p>Ken has 36 more candies than Jackie. How many candies should Ken give to Jackie so they have the same number of candies?</p>	4 0
47	<p>Joey, Chandler, Rachel, Ross, and Monica all go to a restaurant and each orders one item, with no friend ordering the same thing as another friend. The menu says that the restaurant offers milkshakes, soda, pies, fries, and burgers.</p> <p>Monica says she is on a diet and doesn't order a dessert item. Ross doesn't like fries or pies. Rachel says she is thirsty. Joey orders a burger.</p> <p>What did Chandler order?</p>	1 9

48	<p>Right now Ada is 5 years old, and her sister Betty is 19 years old. Their father is 50 years old. When Betty's age is two times that of her sister's, how old is their father?</p>	5 5
49	<p>A square table can seat 8 people, with two people on each side. If five of these tables are put together to form a rectangle, how many people can be seated?</p> 	3 6
50	<p>There are chickens and sheep on a farm. The number of chickens is two times the number of sheep. All together, they have 24 legs. How many chickens are there on the farm?</p>	2 7