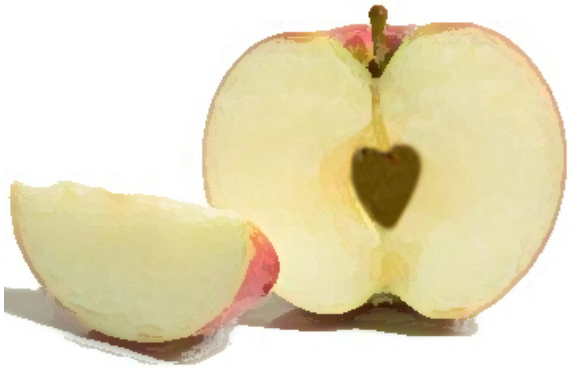


Getting to the Core

Grade 4 Unit of Study

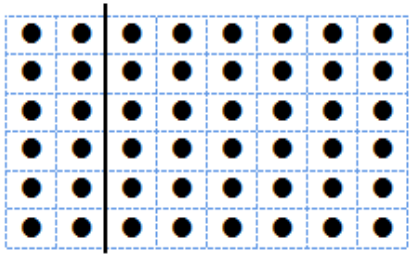
Division

Student Materials

Multiplication and division are inverse operations and both can be represented using rectangular arrays or equal groups

Number Line

Array Model



Area Model

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**

?

8

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

Name: _____

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300

Name_____ 4th Grade Division Unit

Collect data about prime and composite numbers.

	Drawing of counters	Factors	Prime Number	Composite Number
5	00 000	1,5	X	
6	000 000	1, 2, 3, 6		X
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

PRIME AND COMPOSITE NUMBERS
CONCEPT TEST

Name_____ Score_____

Determine if the number in the [ ] is prime or composite.

	Prime	Composite	
1. [43]	_____	_____	Proof: _____
2. [24]	_____	_____	Proof: _____
3. [11]	_____	_____	Proof: _____
4. [30]	_____	_____	Proof: _____
5. [21]	_____	_____	Proof: _____

PRIME AND COMPOSITE NUMBERS
CONCEPT TEST

Name_____ Score_____

Determine if the number in the [ ] is prime or composite.

	Prime	Composite	
1. [43]	_____	_____	Proof: _____
2. [24]	_____	_____	Proof: _____
3. [11]	_____	_____	Proof: _____
4. [30]	_____	_____	Proof: _____
5. [21]	_____	_____	Proof: _____

Divisibility Rules

I'm #2 and I'll be your friend,
as long as an even #'s on the end.

#3 will work for me, you see,
if the sum is divisible by 3.

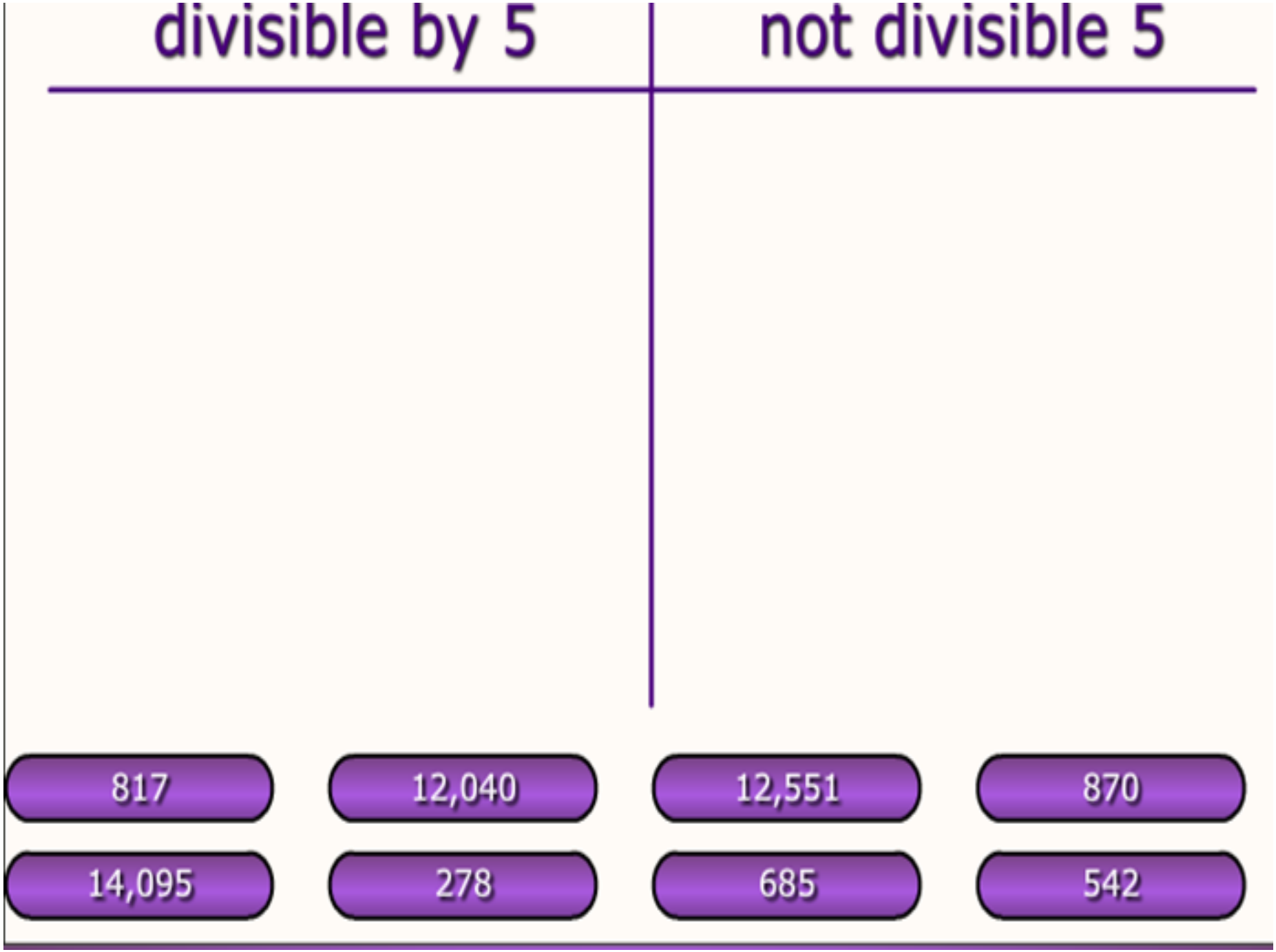
The #4 won't be such a chore,
if the last 2 are divisible by 4.

The #5 is my biggest hero,
he has to end in 5 or 0.

The #6 will always go into me,
as long as so does 2 and 3.

#9 will go into me just fine,
if the sum is divisible by 9.

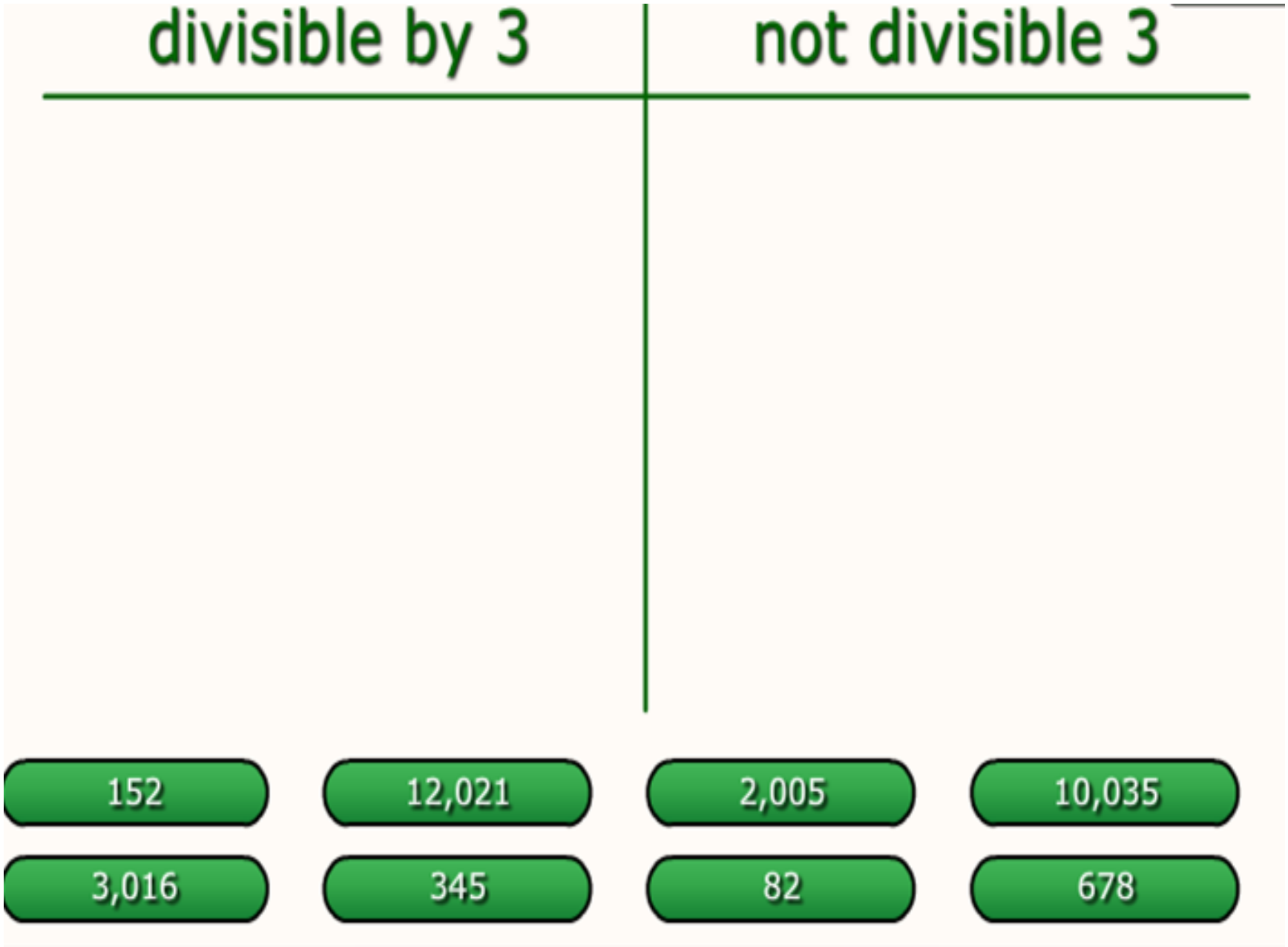
I'm #10 and this you should know,
I always end in a big fat 0!

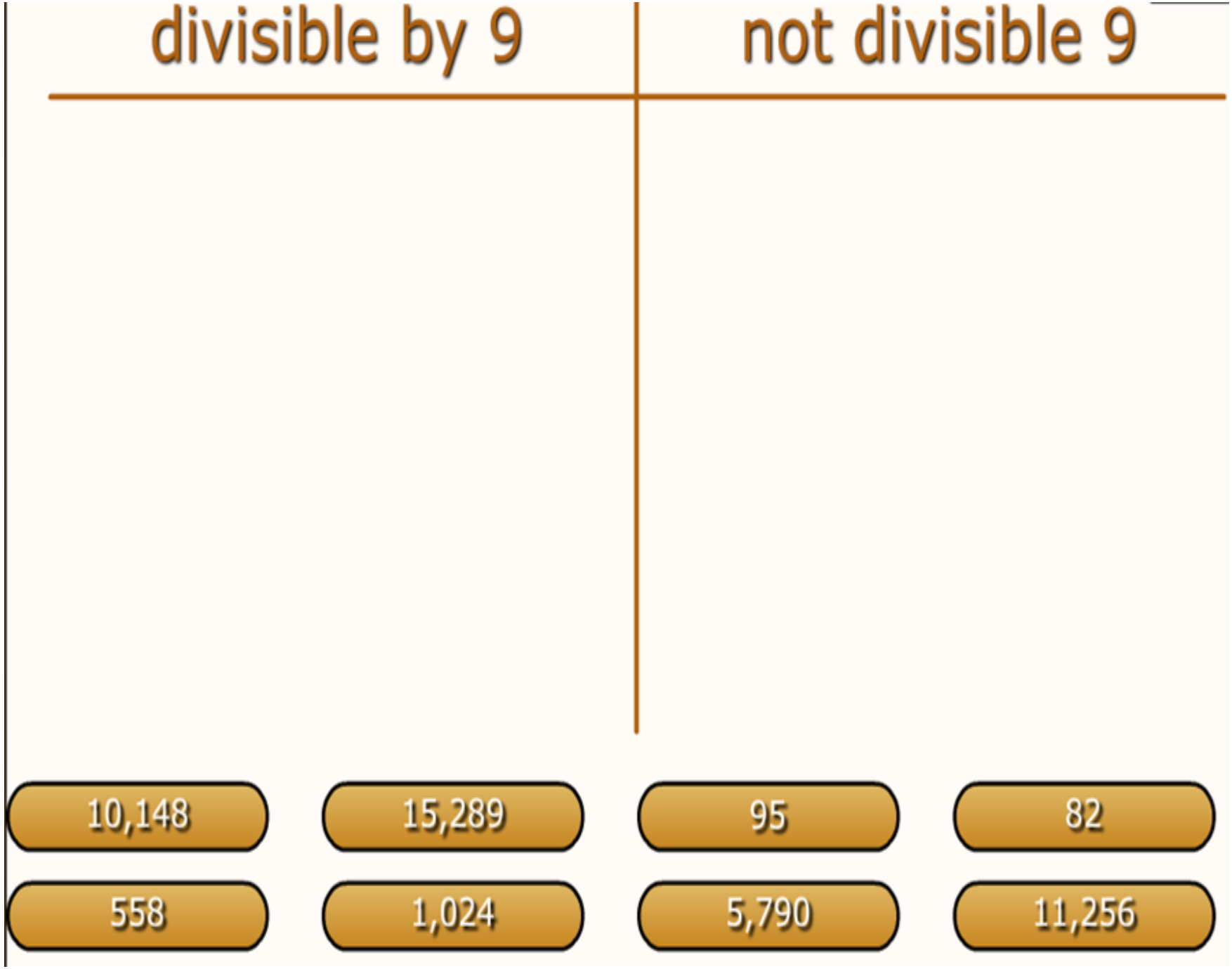

divisible by 5
not divisible 5
817
12,040
12,551
870
14,095
278
685
542

divisible by 2	not divisible 2

15,289 | 94 | 10,147 | 81

1,023 | 5,790 | 558 | 10,256


divisible by 3
not divisible 3
152
12,021
2,005
10,035
3,016
345
82
678


divisible by 9
not divisible 9
10,148
15,289
95
82
558
1,024
5,790
11,256

What about 1000 french fries? Even if you loved fried, 1000 would be too much for one person. You could share them. A single serving has about 40 fries. How many friends would 1000 french fries feed?	The Delmar family collected pennies. When the jar was full, Mrs. Delmar gave the pennies to her three sons. They counted 1,500 pennies and shared them equally. How many pennies did each boy get?
Chip collected 289 dimes. Sue collected 191 dimes. They divided all their dimes into 8 stacks. If each stack had an equal number of dimes, how many dimes were in each stack?	Sela has 6 times as many coins now as she had 4 months ago. If Sela has 240 coins now, how many coins did she have 4 months ago?

	Problem Solving with Division and Patterns of Zero
	Robby sees a rare 1937 penny. The cost is $210. If he saves $3 every week, will Robby have enough money to buy the coin after one year?

Name: _____

Menu Activities after Lesson 4

- ☐ **Choice 1: Array Game: Multiplication Pairs**
- ☐ **Choice 2: Array Game: Count and Compare**
- ☐ **Choice 3: Array Game: Small Array/Big Array**
- ☐ **Choice 4: Hungry Ants**

Menu Activities after Lesson 9

Games

- ☐ **Choice 5: The Game of Leftovers**
- ☐ **Choice 6: Mystery Numbers**
- ☐ **Choice 7: Remainder Face Off, p.133**

Chapter 7 Math Centers

- ☐ **Choice 8: Know Your Nines**
- ☐ **Choice 9: Roomy Dimensions**
- ☐ **Choice 10: What's My Fact**

Chapter 13 Math Centers

- ☐ **Choice 11: Remainders Rule**
- ☐ **Choice 12: Bits and Pieces**
- ☐ **Choice 13: Dividend Rolls**

Menu Activities after Lesson 14

Chapter 14 Math Centers

- ☐ **Choice 14: Division Day**
- ☐ **Choice 15: Division Puzzles**
- ☐ **Choice 16: Divide and Score**

Chapter 15 Math Centers

- ☐ **Choice 17: Flowers Factors**
- ☐ **Choice 18: Prime Time**
- ☐ **Choice 19: Making Trees**