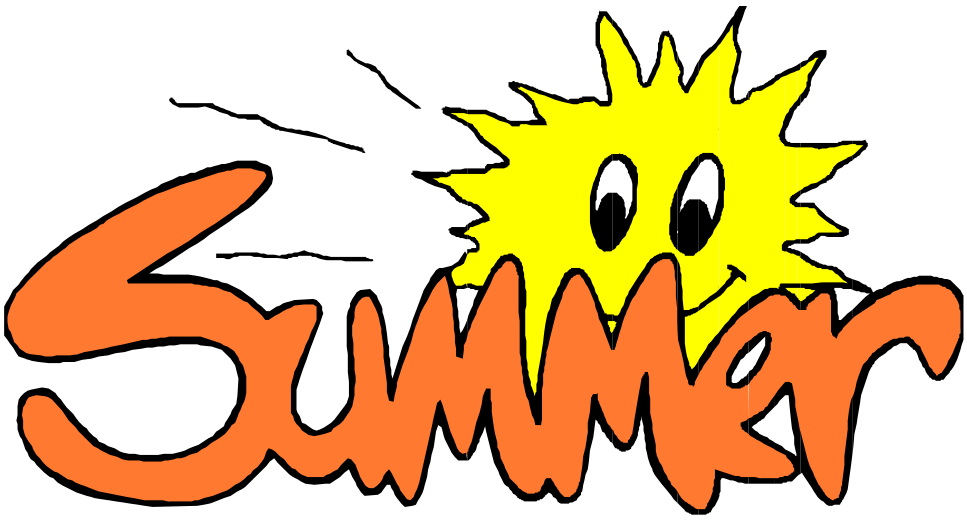


MATH PACKET

for

Students Entering the **Third Grade**

Students Name: _____

First and Last

Student's **Third** Grade Teacher: _____

Parent's Signature: _____

INTRODUCTION

Welcome to the summer math packet for students entering third grade. Activities are designed to support instruction in the MCPS curriculum in both its content and presentation. Activities may be done independently or with a parent, guardian, or older brother or sister. Talking about the problem can be an important part of completing some activities.

How Wayside's Summer Math Program Works:

- Students set their own goals for completing math activities.
- Students use the math packet to complete and record responses for the activities.

Summer Packet Content:

Standard 1: Operations and Algebraic Thinking

- Activity A: Holiday Shuttle Bus Activity B: Adding or Subtracting?

Standard 2: Number and Operations in Base Ten

- Activity A: Spilled Coffee
- Activity B: Skip Counting Game

Standard 3: Measurement and Data

- Activity A: Pets Survey Activity B: Money Counts!

Standard 4: Geometry

- Activity A: Ava's Awesome Amusement Park
- Activity B: Cracker Quads

Grade 2 Review: Operations and Algebraic Thinking, Activity A

Directions: Read through the following problem and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

Holiday Shuttle Bus

You are spending July Fourth, Independence Day, in Ocean City. There is a shuttle that takes people from your hotel to the fireworks display. There are 64 people waiting in line for the shuttle. The driver lets people on and the shuttle leaves. There are still 24 people standing in line waiting for the next shuttle. A) How many people left on the first shuttle?

B) Write an equation that represents the problem situation below.

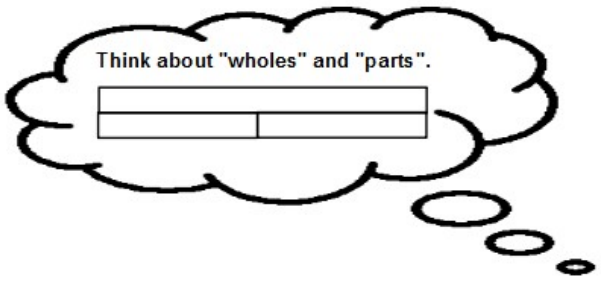
C) Use a "**?**" to represent the unknown number in the problem. D) Solve the equation.

CHALLENGE:

The shuttles only leave when they are full.

E) How many more people must get in line to fill the second shuttle?

REMEMBER to show how you know your answers are correct.



Grade 2 Review: Operations and Algebraic Thinking, Activity B

Directions: Read through the following problem and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

Adding or Subtracting

Jillian has 17 pencils. Juan has 35 pencils. How many fewer does Jillian have?

Jessica says this is an addition problem. Hector disagrees and says this is a subtraction problem.

A) Explain each child's thinking.

CHALLENGE:

B) Which way of thinking about this problem makes the most sense to you? Explain your choice.

REMEMBER to show how you know your answers are correct.

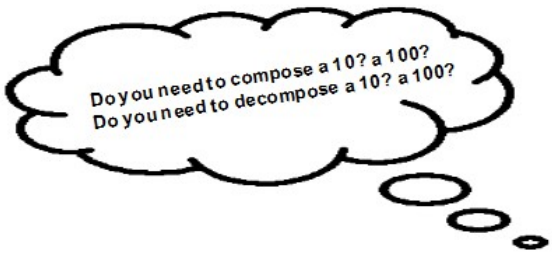
Grade 2 Review: Number and Operations in Base Ten, Activity A

Directions: Read through the following problem and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

You have just completed some practice activities in math this summer. Your aunt is visiting for the week and spilled her coffee on portions of your work. Fill in the places where the coffee has covered the work you completed.

A) Find the missing digit in each equation. Use numbers, pictures, or words to show how you figured out the missing digit.

$$\begin{array}{r} 616 \\ -\ 228 \\ \hline \blacksquare 88 \end{array} \qquad \begin{array}{r} 3\blacksquare 6 \\ +293 \\ \hline 619 \end{array}$$



REMEMBER to show how you know your answers are correct.

CHALLENGE:

Oh, no! Your aunt spilled coffee on **two** numbers. You remember that one was a 56 and the other number was a 24. However you don't recall the order of the numbers.

$63 + 33 + \square + \square = \_\_\_\_\_$

B) Solve this problem. Use numbers, pictures, or words to show your written method. (*You may use the attached place value models if you wish*.)

$63 + 33 + 24 + 56 = \_\_\_\_\_$

C) Now, look at the equation below. Explain why the sum is the same as in the problem above. (*You may use the attached place value models if you wish*.)

$63 + 33 + 56 + 24 = \_\_\_\_\_$

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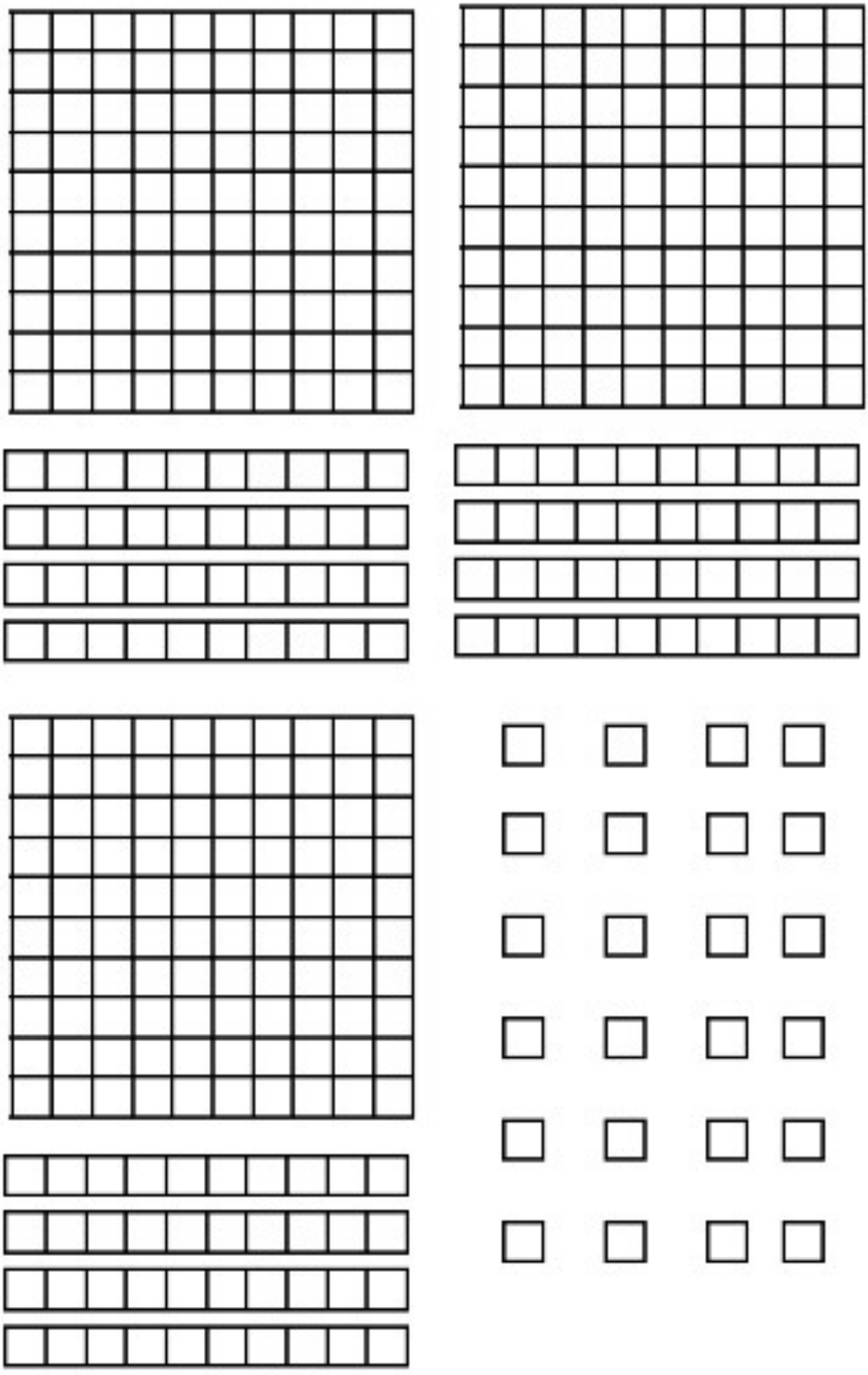
Cut out if you need base ten models.



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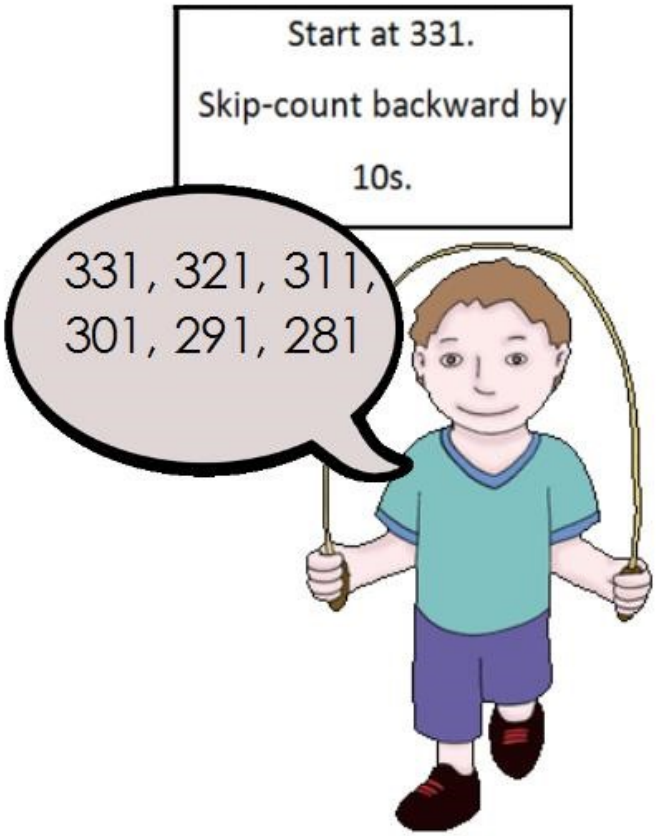
Grade 2 Review: Number and Operations in Base Ten, Activity B

Directions: Read through the following directions. You may work with a parent, older brother or sister, or friend. Include a completed score card to show that you participated in this activity.

Skip Counting Game

Ask an adult or older sibling to play with you. Cut out the cards and place them face down. Take turns drawing a card and skip-counting according to the directions. Each player must extend the skip-counting pattern by 5 more places. Here is an example…



The last number becomes a player's score. For example, this player should write down a score of "281" on the score sheet. The game is over when all the cards are gone. Use a calculator to total each player's score.

Go to http://number-chart.heroku.com/ for an interactive thousands chart if you need help!

Score Card

Player 1	Player 2

To play this game again, create your own score card on a sheet of lined paper.

Start at 92. Skip-count forward by 10s.	Start at 931. Skip-count backward by 10s.
Start at 42. Skip-count forward by 100s.	Start at 667. Skip-count backward by 100s.
Start at 329. Skip-count forward by 10s.	Start at 331. Skip-count backward by 10s.
Start at 28. Skip-count forward by 100s.	Start at 770. Skip-count backward by 100s.
Start at 556. Skip-count forward by 10s.	Start at 101. Skip-count backward by 10s.

blank

Start at 43. Skip-count forward by 10s.	Start at 221. Skip-count backward by 10s.
Start at 15. Skip-count forward by 100s.	Start at 703. Skip-count backward by 100s.
Start at 104. Skip-count forward by 10s.	Start at 800. Skip-count backward by 10s.
Start at 12. Skip-count forward by 100s.	Start at 679. Skip-count backward by 100s.
Start at 224. Skip-count forward by 10s.	Start at 339. Skip-count backward by 10s.

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CHALLENGE:

You've been asked to see how high you can skip count. You have a choice: you can either skip count by 5 or by 7.

A) Which number would you choose to skip count by and why? Try to think of a model that will explain your choice.

REMEMBER to show how you know your answers are correct.

Grade 2 Review: Measurement and Data, Activity A

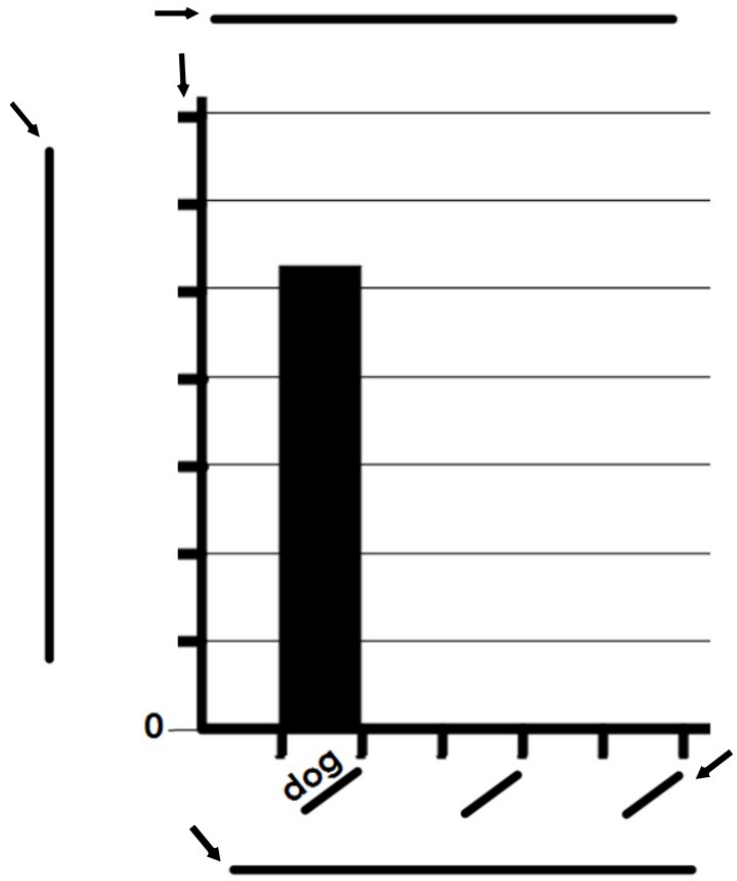
Directions: Read through the following problem and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

Ryan and An Mae created the table below by conducting a class survey. Study their results.

A) Use information from the tally chart below to make a complete bar graph on the backside of this page. Remember to include a title, scale, labels, and label each axis.

Pets in Third Grade

Pets	How Many?
dogs	𝍸 𝍸 𝍸 𝍸 𝍸 ||
cats	𝍸 𝍸 𝍸
no pets	𝍸 𝍸



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B) What do you notice about the data on the graph? Write a few observations:

CHALLENGE:

Next, An Mae and Ryan decided to survey the entire third grade. These are the new results.

Pets in Third Grade

Pets	How Many?
dogs	125
cats	100
no pets	65

C) Looking at the original graph, how does the new data affect the scale they used?

D) What scale would work better? (Show your new scale below.)

E) Explain why you decide to change the scale the way you did?

REMEMBER to show how you know your answers are correct.

Grade 2 Review: Measurement and Data, Activity B

Money Counts

Directions: Read through the following problem and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

Preetam has this much money:

Tyreek has this much money:

A) Who has more money?

B) How do you know?

REMEMBER to show how you know your answers are correct.

CHALLENGE:

C) Add coins and bills to the amount already shown to find an amount that is *between* what Preetam and Tyreek have. Use Q, D, N, and P to represent the coins if you choose to draw a picture.

Q	D	N	P
25¢	10¢	5¢	1¢

D) Show the amount you represented above in a different way.

blank

Grade 2 Review: Geometry, Activity A

Directions: Read through the following story and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

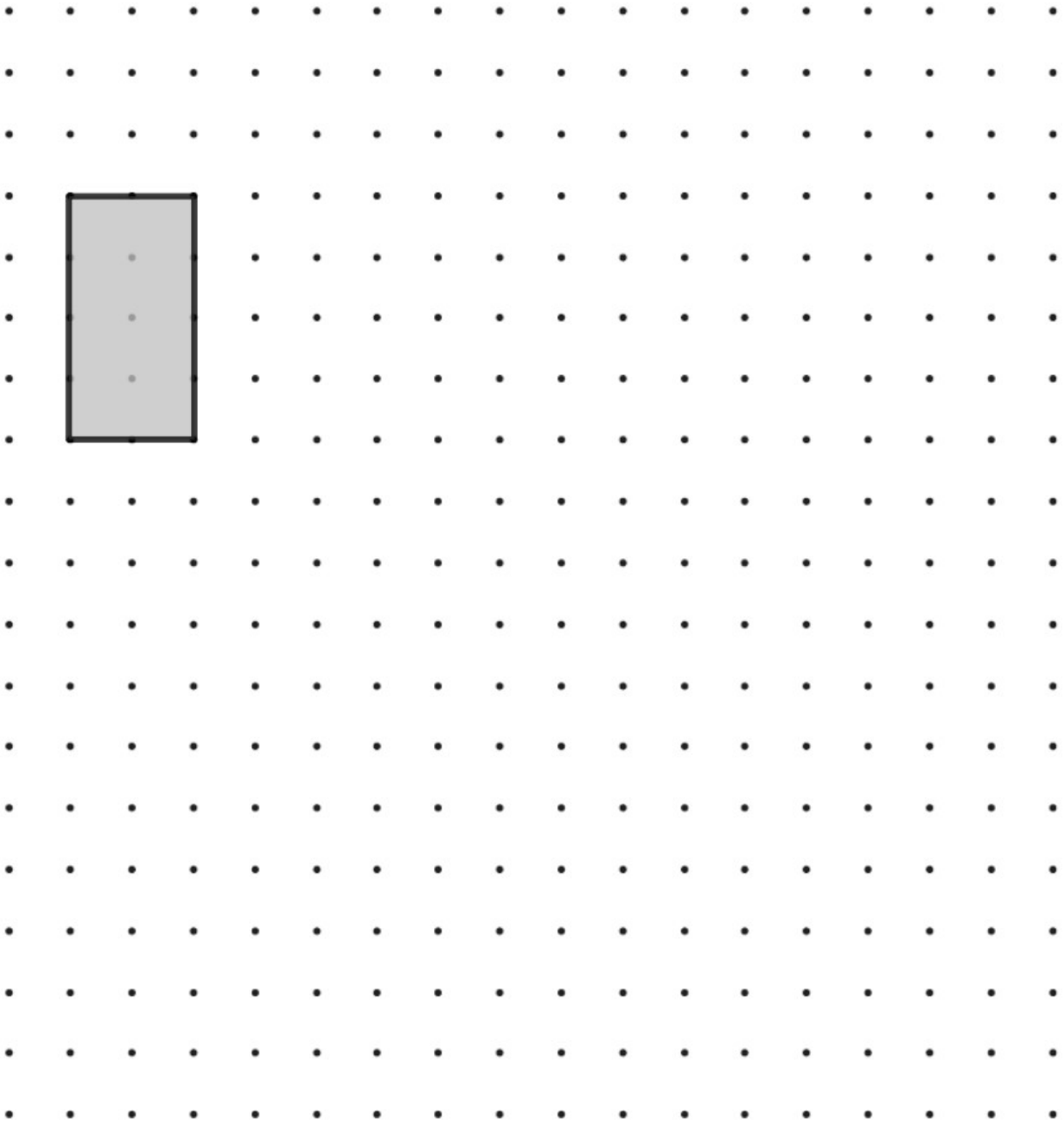
You have been asked to help design the layout for a new summer amusement park. The owner loves geometry and wants each section of the park to look like a certain shape. Below are the owner's criteria for your design:

Ava's Awesome Amusement Park

Attraction	Shape	Color
theater	a rectangle	gray
roller coaster	a quadrilateral that is not a rectangle or square	blue
miniature golf	a shape with 6 sides	red
bumper cars	a shape with 5 corners	orange
wave pool	a triangle	green
Ferris wheel	a shape with 5 sides	purple

A) Use the dot paper below to design the layout for your amusement park. The first one is done for you. Be sure to color your shapes.

Ava's Awesome Amusement Park



B) What do we call the *shape* of the Ferris Wheel area?

C) Miniature Golf area?

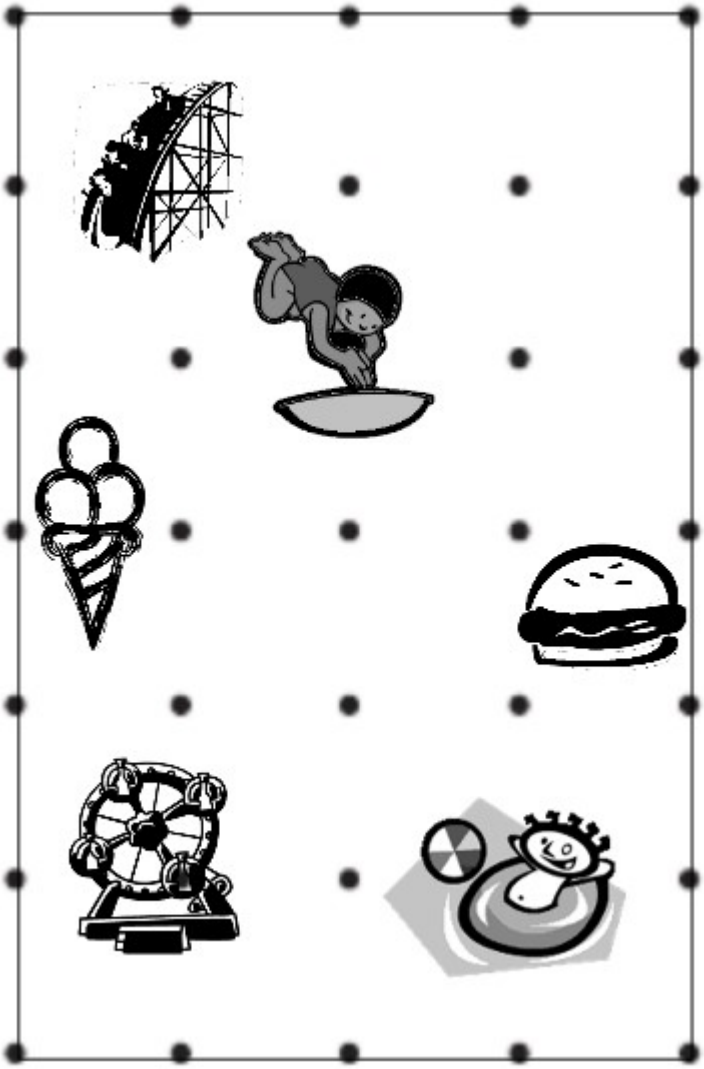
D) Bumper Car area?

CHALLENGE:

There is another amusement park down the road. Luca and Mateo each want to celebrate their birthday's there. The park must be split completely in half so that each child gets the same number of activities. No activity can be cut in half.

E) Show how you might be able to cut the park in half so that both children can celebrate their parties.

Birthday Party Amusement Park



Grade 2 Review: Geometry, Activity B

Cracker Quads

Directions: Read through the following problem and answer the questions. Use the space on the back of this page to complete your work. You may work with a parent, older brother or sister, or friend, but you must show all of your ideas in words, pictures or symbols to completely answer the questions.

To do this activity you will want to find a square snack cracker. You can use Cheez-Its, Wheat Thins, Saltines, or if you do not have crackers anything small and square will work. (Cut out squares from attached paper if you wish). Lay the crackers (or squares) side-by-side in columns and rows in the space provided.

A) How many different kinds of rectangles can you create from 12 crackers? Draw pictures to represent your rectangles.

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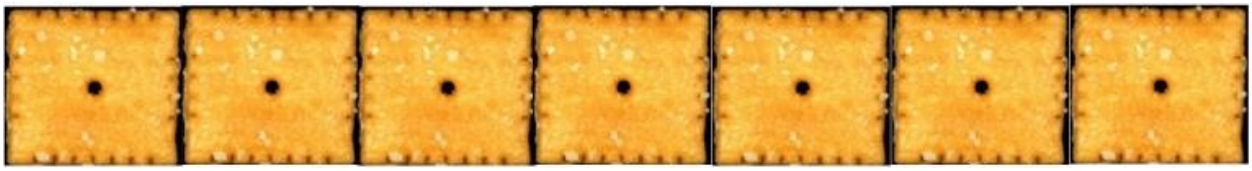
CHALLENGE:

Someone gave Macy 7 crackers. She made this rectangle:



B) Is there another way she can use 7 crackers to make a rectangle? Use numbers, pictures, or words to show your thinking.

REMEMBER to show how you know your answer is correct.

blank

3-Digit Addition & Subtraction

1. Break down the problem using the base 10 method.

352 + 485 =

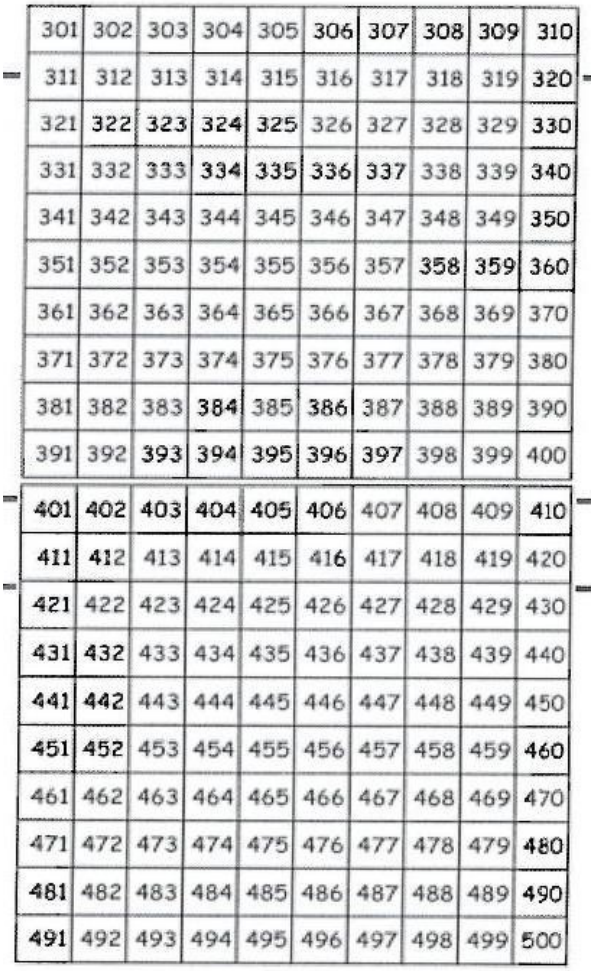
2. Break down the problem by place value and solve.

658 - 232 =

3. Use the thousands chart to solve.

482 - 126 =

359 + 137 =



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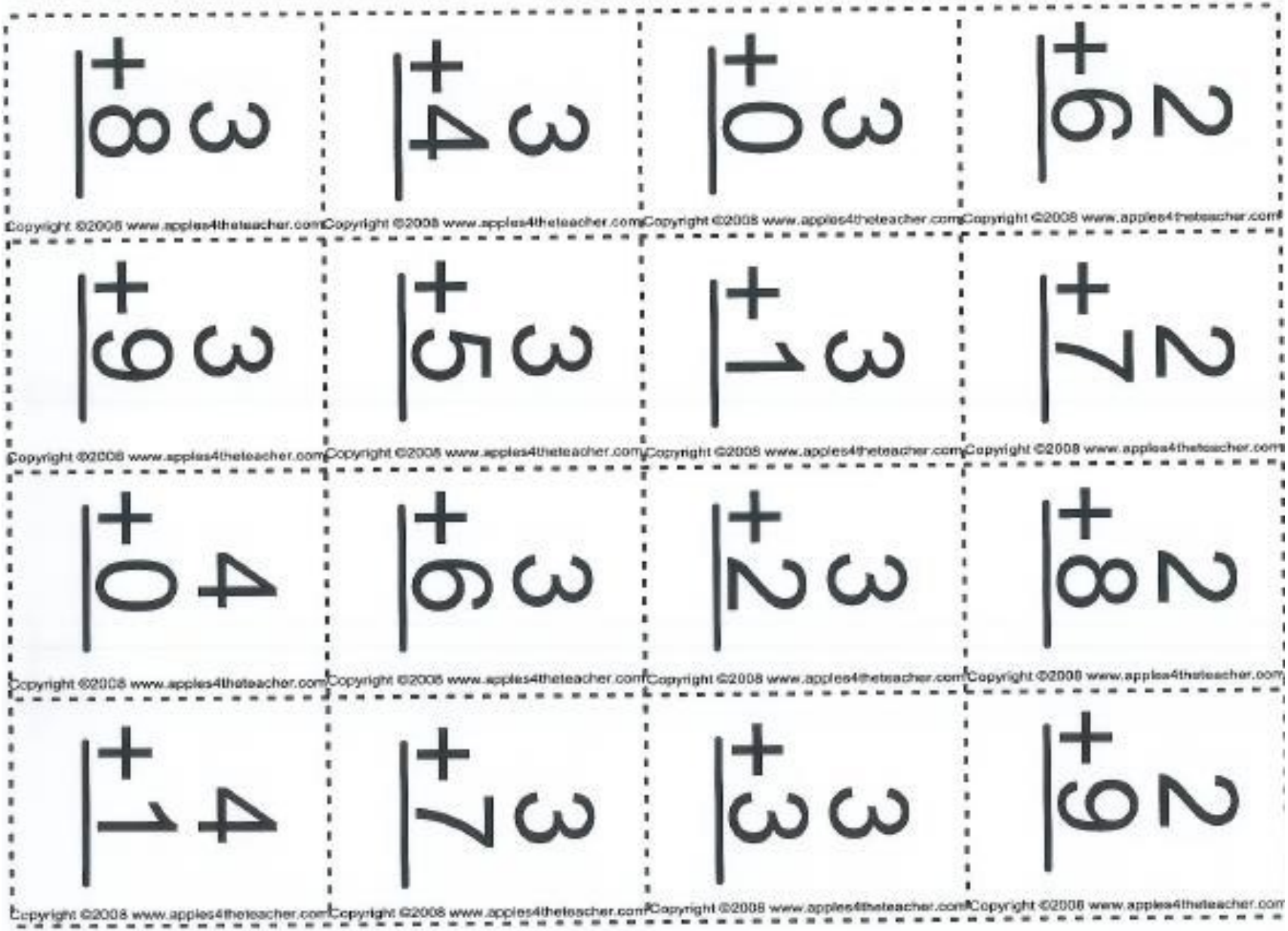
341	342	343	344	345	346	347	348	349	350
351	352	353	354	355	356	357	358	359	360
361	362	363	364	365	366	367	368	369	370
371	372	373	374	375	376	377	378	379	380
381	382	383	384	385	386	387	388	389	390
391	392	393	394	395	396	397	398	399	400
401	402	403	404	405	406	407	408	409	410
411	412	413	414	415	416	417	418	419	420
421	422	423	424	425	426	427	428	429	430
431	432	433	434	435	436	437	438	439	440
441	442	443	444	445	446	447	448	449	450
451	452	453	454	455	456	457	458	459	460
461	462	463	464	465	466	467	468	469	470
471	472	473	474	475	476	477	478	479	480
481	482	483	484	485	486	487	488	489	490
491	492	493	494	495	496	497	498	499	500

4. Draw a number line to solve.

545 - 297 =


8 + 3
4 + 3
0 + 3
6 + 2
6 + 3
5 + 3
1 + 3
7 + 2
0 + 4
6 + 3
2 + 3
8 + 2
1 + 4
7 + 3
3 + 3
9 + 2
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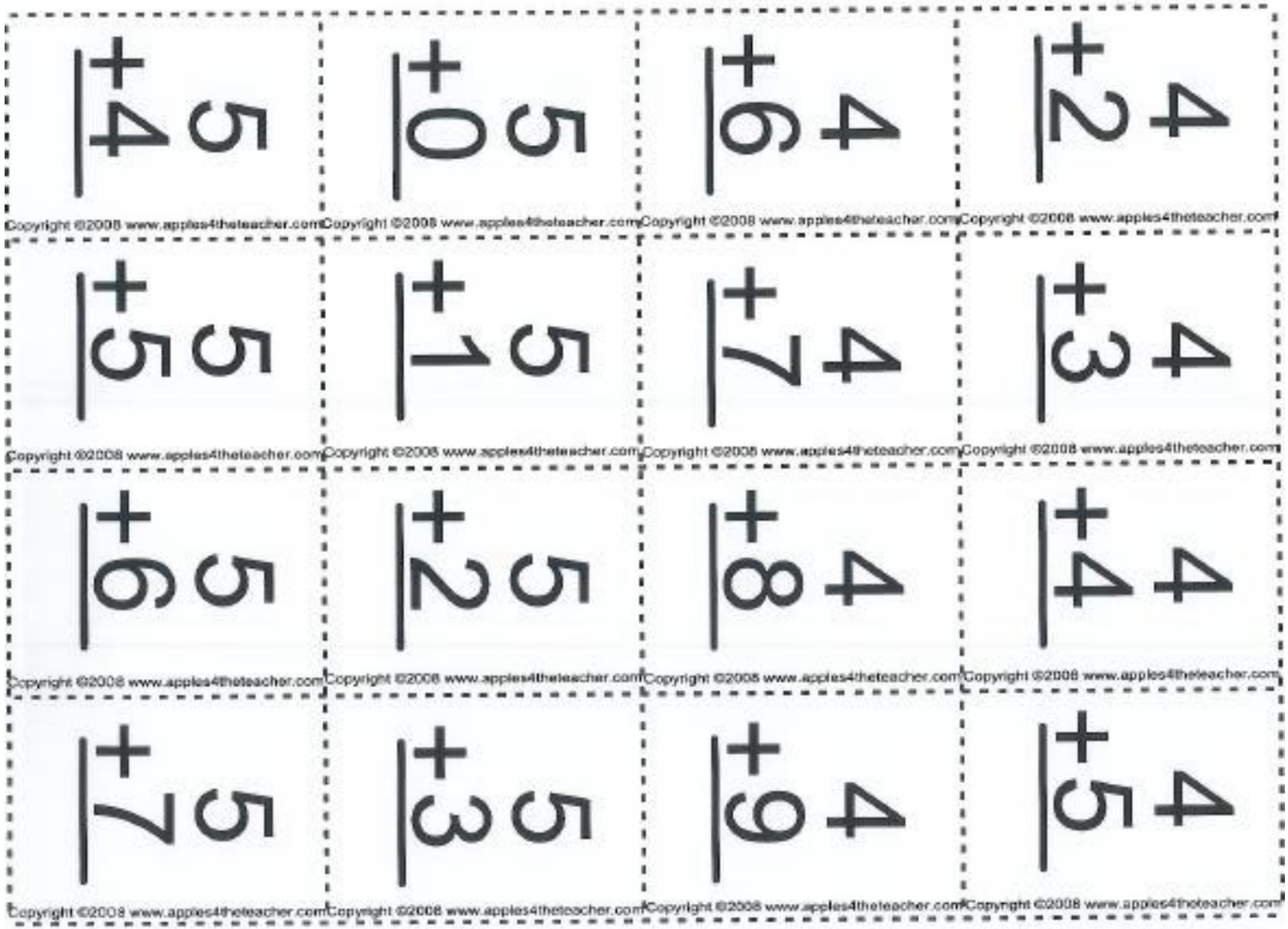
5 + 4
5 + 0
4 + 6
4 + 2
5 + 5
5 + 1
4 + 7
4 + 3
5 + 6
5 + 2
4 + 8
4 + 4
5 + 7
5 + 3
4 + 9
4 + 5
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5 +8	5 +9	6 +0	6 +1
6 +2	6 +3	6 +4	6 +5
6 +6	6 +7	6 +8	6 +9
7 +0	7 +1	7 +2	7 +3

7 +4	7 +5	7 +6	7 +7
7 +8	7 +9	8 +0	8 +1
8 +2	8 +3	8 +4	8 +5
8 +6	8 +7	8 +8	8 +9

9 +0	9 +1	9 +2	9 +3
9 +4	9 +5	9 +6	9 +7
9 +8	9 +9	1 + 0 = 1 1 + 1 = 2 1 + 2 = 3 1 + 3 = 4 1 + 4 = 5 1 + 5 = 6 1 + 6 = 7 1 + 7 = 8 1 + 8 = 9 1 + 9 = 10	2 + 0 = 2 2 + 1 = 3 2 + 2 = 4 2 + 3 = 5 2 + 4 = 6 2 + 5 = 7 2 + 6 = 8 2 + 7 = 9 2 + 8 = 10 2 + 9 = 11
3 + 0 = 3 3 + 1 = 4 3 + 2 = 5 3 + 3 = 6 3 + 4 = 7 3 + 5 = 8 3 + 6 = 9 3 + 7 = 10 3 + 8 = 11 3 + 9 = 12	4 + 0 = 4 4 + 1 = 5 4 + 2 = 6 4 + 3 = 7 4 + 4 = 8 4 + 5 = 9 4 + 6 = 10 4 + 7 = 11 4 + 8 = 12 4 + 9 = 13	5 + 0 = 5 5 + 1 = 6 5 + 2 = 7 5 + 3 = 8 5 + 4 = 9 5 + 5 = 10 5 + 6 = 11 5 + 7 = 12 5 + 8 = 13 5 + 9 = 14	6 + 0 = 6 6 + 1 = 7 6 + 2 = 8 6 + 3 = 9 6 + 4 = 10 6 + 5 = 11 6 + 6 = 12 6 + 7 = 13 6 + 8 = 14 6 + 9 = 15

$\begin{array}{r} 7 \\ -\,6 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\,7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\,0 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\,1 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ -\,2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\,3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\,4 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ -\,5 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ -\,6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\,0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\,1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\,2 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ -\,3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\,4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\,5 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ -\,0 \\ \hline \end{array}$

$\begin{array}{r} 9 \\ -\,9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,0 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,1 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,2 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ -\,3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,6 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ -\,7 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ -\,8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\,0 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\,1 \\ \hline \end{array}$
$\begin{array}{r} 7 \\ -\,2 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\,3 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\,4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ -\,5 \\ \hline \end{array}$

$\frac{9}{5}$	$\frac{9}{1}$	$\frac{10}{8}$	$\frac{10}{4}$
$\frac{9}{6}$	$\frac{9}{2}$	$\frac{10}{9}$	$\frac{10}{5}$
$\frac{9}{7}$	$\frac{9}{3}$	$\frac{10}{10}$	$\frac{10}{6}$
$\frac{9}{8}$	$\frac{9}{4}$	$\frac{9}{0}$	$\frac{10}{7}$

$\frac{10}{0}$	$\frac{11}{8}$	$\frac{11}{4}$	$\frac{11}{0}$
$\frac{10}{1}$	$\frac{11}{9}$	$\frac{11}{5}$	$\frac{11}{1}$
$\frac{10}{2}$	$\frac{11}{10}$	$\frac{11}{6}$	$\frac{11}{2}$
$\frac{10}{3}$	$\frac{11}{11}$	$\frac{11}{7}$	$\frac{11}{3}$