

LONG DIVISION WITH REMAINDERS



4 MINI-LESSONS

Division with Remainders: Partial Quotient

$$\begin{array}{r} 6 \overline{) 463} \\ - 360 \\ \hline 103 \\ - 60 \\ \hline 43 \\ - 42 \\ \hline 1 \end{array}$$

$(60) \times 6 = 360$
 $(10) \times 6 = 60$
 $(7) \times 6 = 42$
 $60 + 10 + 7 = 77$

Step 1: Multiply the 6 by any number that will go into 463.

Step 2: Subtract (360).

Step 3: Multiply the 6 by any number that will go into 103. The goal is to keep going till we get to 0.

Step 4: Subtract (60).

Step 5: Multiply the 6 by any number that will go into 43.

Step 6: Subtract (42).

Step 7: Add up all your partial answers to get the real answer!

$$\begin{array}{r} 8 \overline{) 524} \\ - 480 \\ \hline 44 \\ - 40 \\ \hline 4 \end{array}$$

$$60 \times 8 = 480$$

$$5 \times 8 = 40$$

$$60 + 5 = 65 \text{ r } 4$$

Division With Remainders: Box Method

$$258 \div 8 = 32 \text{ r } 2$$

0	3	2
8	2	5
-0	2	4
2		
	1	8
	-1	6
		2

Step 1: Draw your box and add in your division equation.

Step 2: See how many times 8 can go into the hundreds place (2). Write that number on top (0).

Step 3: Subtract the number on top (0) from the hundreds place (2). Bring the answer up (2) to the next column.

Step 4: See how many times 8 can go into 25. It goes in 3. Write the 3 on top.

Step 5: Then subtract 24 from 25 (1). Bring the 1 up to the next column.

Step 6: See how many times 8 can go into 18. It goes in 2 times. Write 2 on top. Subtract the 16-18=2.

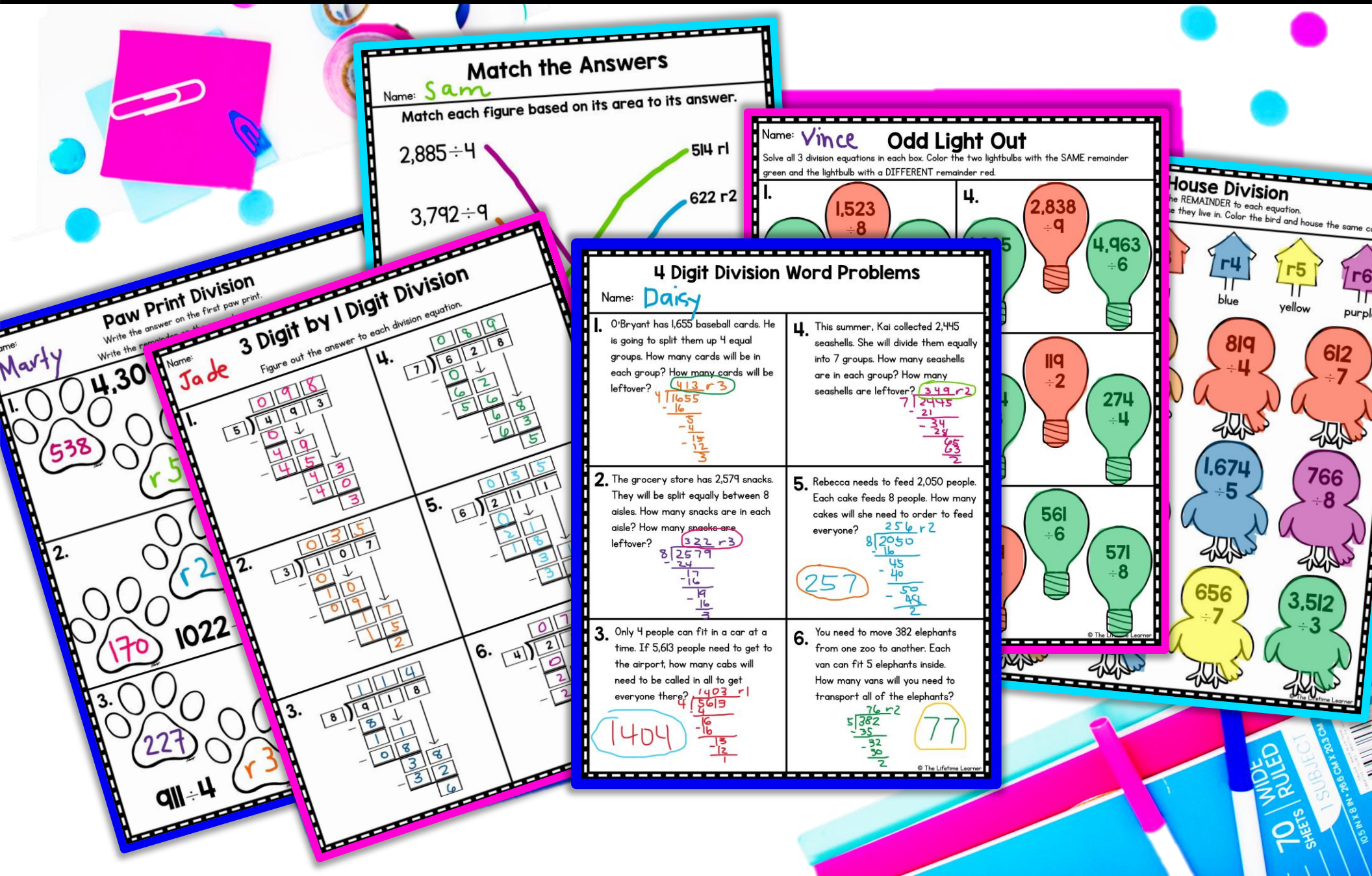
Step 7: Your answer is on top of the box (32 with remainder of 2).

$$431 \div 7 = 61 \text{ r } 4$$

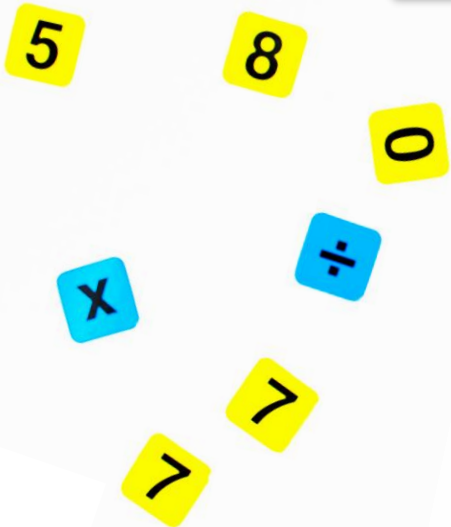
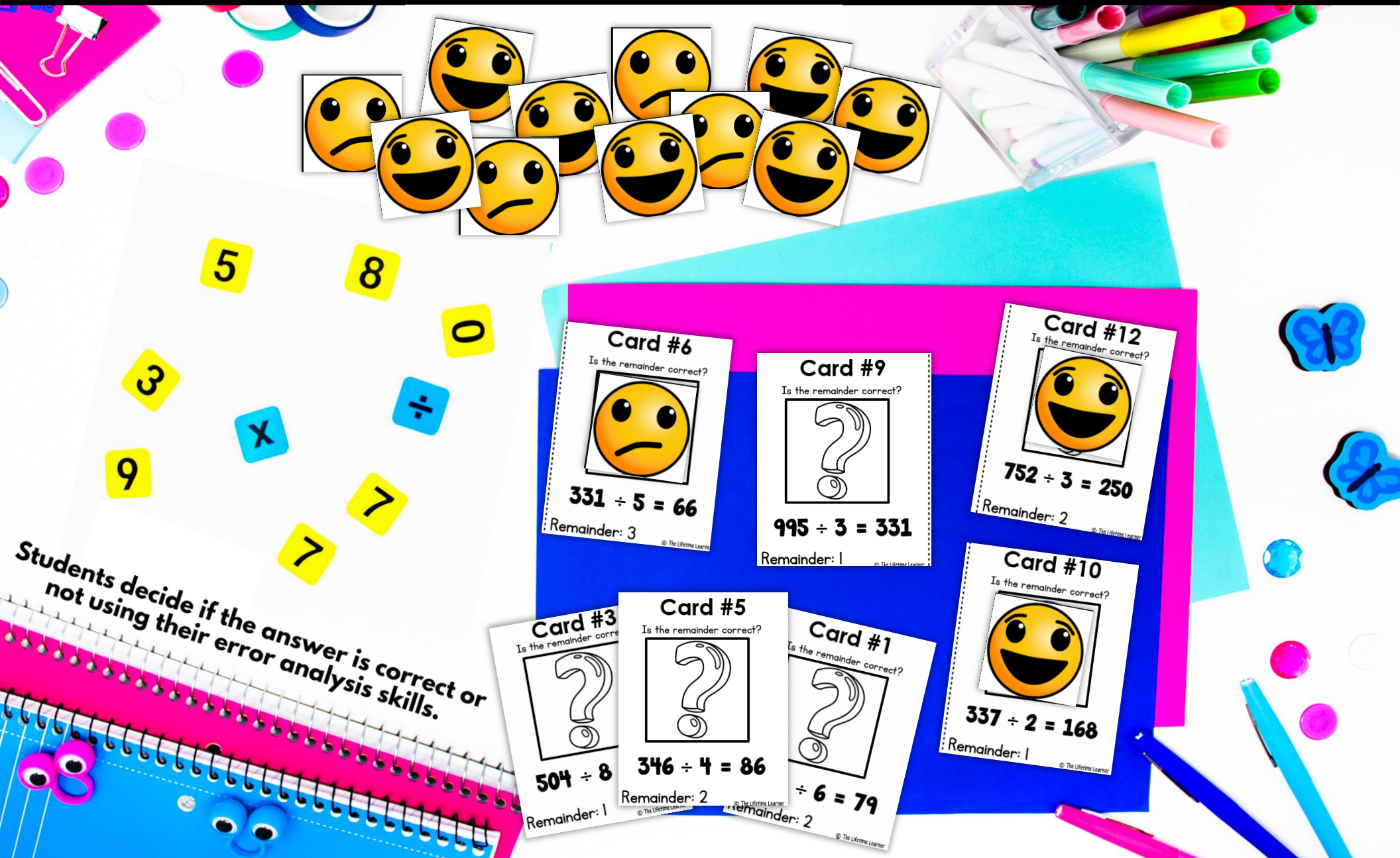
0	6	1
7	4	3
-0	4	2
4		
	1	1
	-1	0
		1
		-0
		1
		4

- algorithm
- partial quotient
- area model
- box method

10 WORKSHEETS



MATH SORT



Card #6
Is the remainder correct?

 $331 \div 5 = 66$
Remainder: 3

Card #9
Is the remainder correct?

 $995 \div 3 = 331$
Remainder: 1

Card #12
Is the remainder correct?

 $752 \div 3 = 250$
Remainder: 2

Card #10
Is the remainder correct?

 $337 \div 2 = 168$
Remainder: 1

Card #3
Is the remainder correct?

 $504 \div 8$
Remainder: 1

Card #5
Is the remainder correct?

 $346 \div 4 = 86$
Remainder: 2

Card #1
Is the remainder correct?

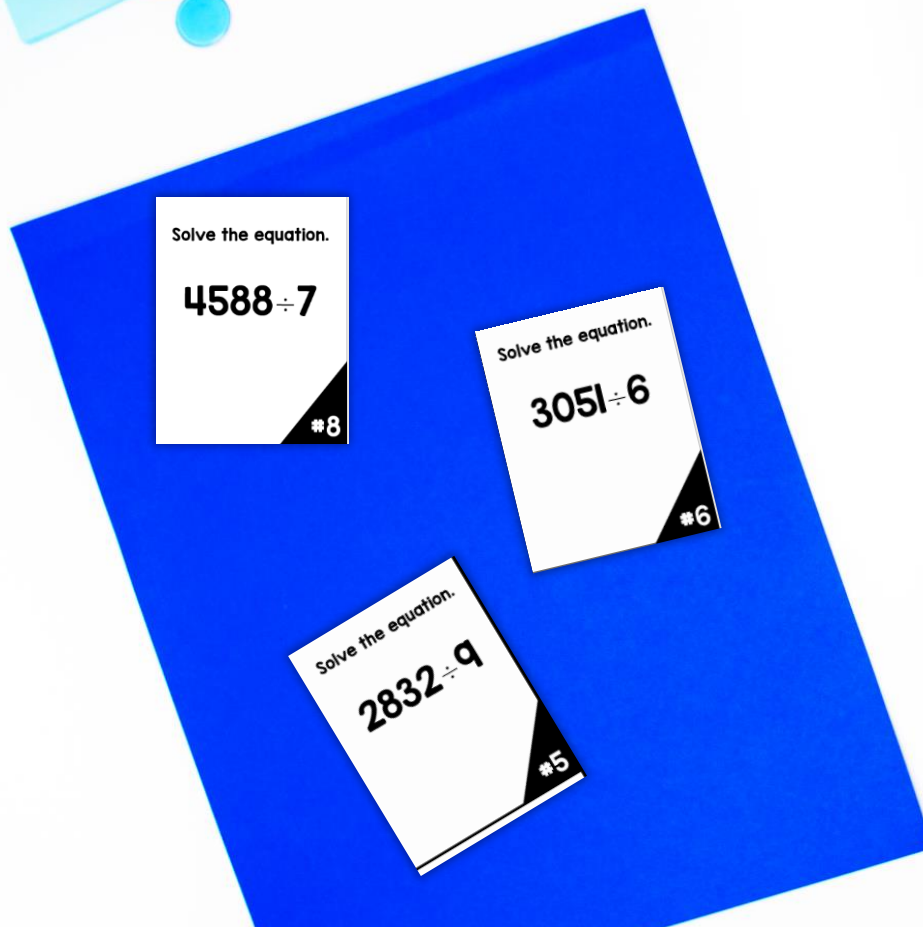
 $\div 6 = 79$
Remainder: 2

Students decide if the answer is correct or not using their error analysis skills.

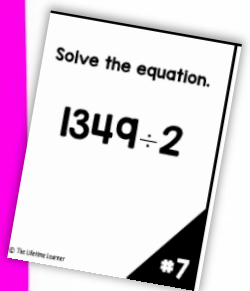
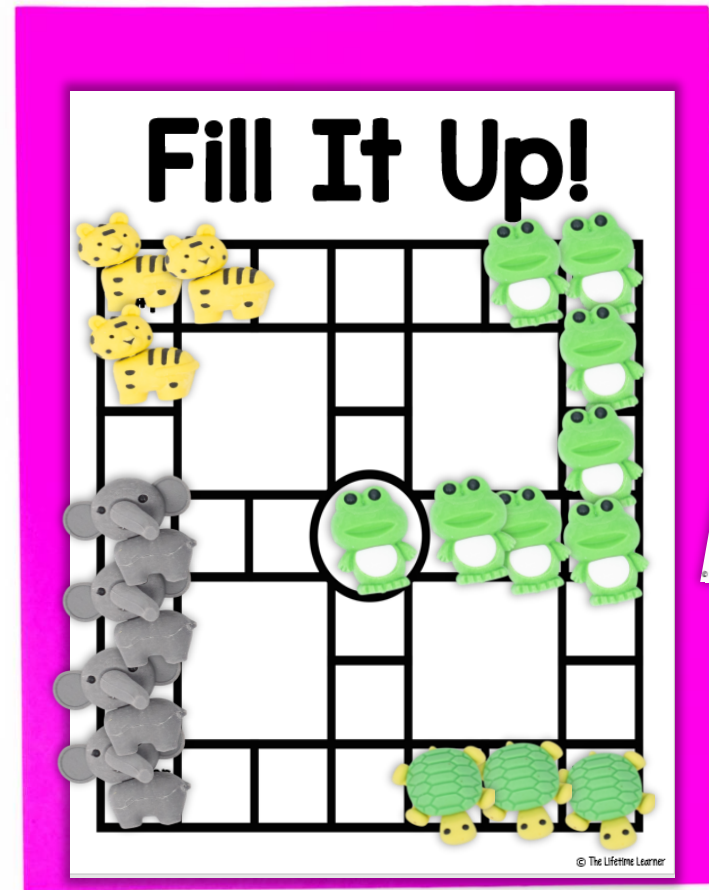
REMAINDER SORT



**Students sort the penguins
onto the correct backgrounds
based on each remainder.**



Students try to cover the entire gameboard with their selected game pieces. The person with the most spaces covered at the end wins.



GAME #1

FOR 2-4 PLAYERS



HOW TO PLAY:

1. All players receive a game mat.
2. Students answer a question card.
3. If they are correct, they earn an item.
4. The first person to earn 10 items wins.
5. Chance cards included to spice up gameplay.

division equations
multiplayer game

$$1,445 \div 7$$

#4

$$6,071 \div 5$$

$$4,352 \div 6$$

$$725 \\ r2$$

#1

$$3,296 \div 9$$

#2

Chance Card!

To

Chance Card!

Chance Card!

Take 1 piece
from the
middle.

Take a piece
from the middle
and give it to
another player.

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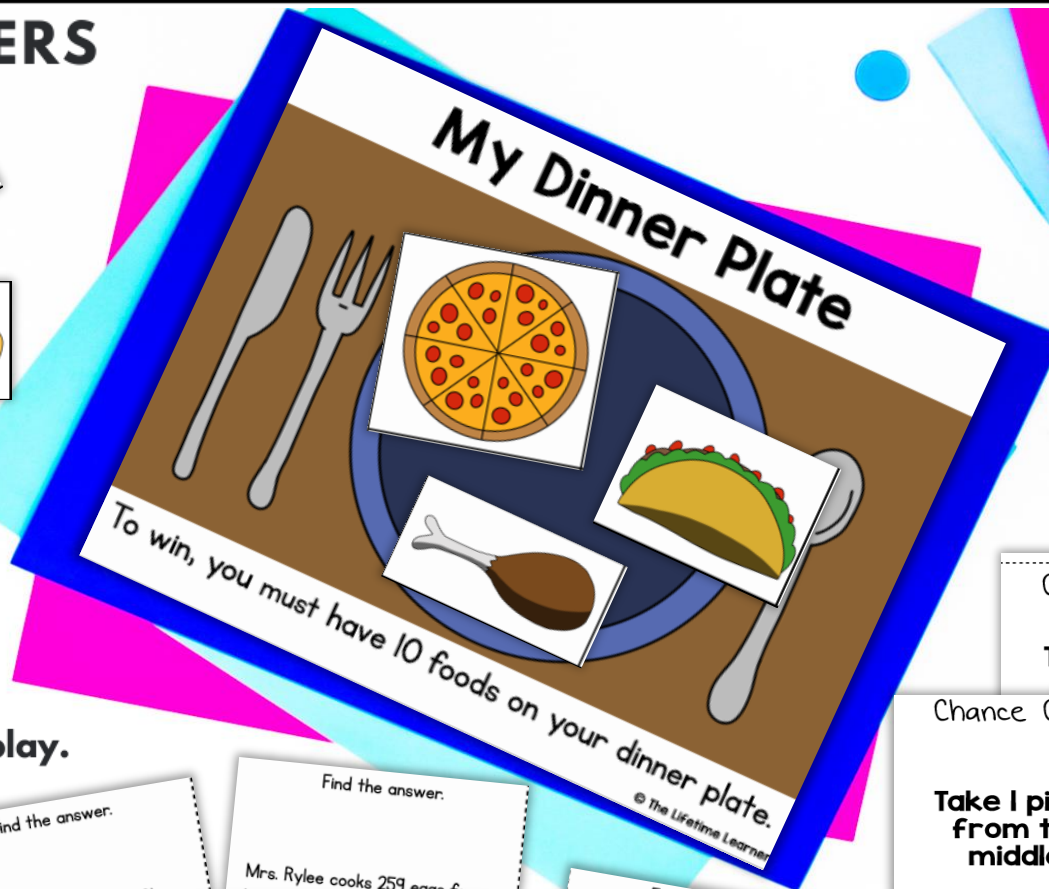
GAME #2

FOR 2-4 PLAYERS



HOW TO PLAY:

1. All players receive a game mat.
2. Students answer a question card.
3. If they are correct, they earn an item.
4. The first person to earn 10 items wins.
5. Chance cards included to spice up gameplay.



interpret remainders
multiplayer game

Find the answer:
Lilah has 2 dishes to clean. She has 913 drops of soap to clean the dishes. If she uses an equal amount of soap on each dish, how many drops of soap did she use on each dish?

#3

Find the answer:
Mrs. Rylee cooks 259 eggs for breakfast. If she uses an equal amount of eggs on each dish, how many eggs did she use on each dish?

Find the answer:
Moses mows 4 lawns and made the same amount of money mowing each lawn. He made 198 dollars because one house gave him an extra tip. How much was the tip?

#4

Find the answer:
Mr. Barker has 617 dollars. He sees that hams cost 9 dollars each. If he bought as many pieces as he could, how much money would he have left?

$617 \div 9 = 68$
 $r5$

#2

Chance Card!
To

Chance Card!
Take 1 piece from the middle.

Chance Card!
Take a piece from the middle and give it to the other player.

GAME #3



LINE THEM UP!	START!	1
LINE THEM UP!	$1,938 \div 5$	1
LINE THEM UP!	$387 \text{ r}3$ $1,365 \div 4$	1
LINE THEM UP!	$341 \text{ r}1$ $4,635 \div 2$	1
LINE THEM UP!	$2,317 \text{ r}1$ $6,821 \div 3$	1
LINE THEM UP!	$2,273 \text{ r}2$ $3,847 \div 8$	1

LINE THEM UP!	$658 \text{ r}2$ FINISH!	1
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LINE THEM UP!	START!	2
LINE THEM UP!	$7,613 \div 6$	2
LINE THEM UP!	$678 \text{ r}1$ $7,931 \div 9$	2
LINE THEM UP!	$881 \text{ r}2$ $1,161 \div 4$	2
LINE THEM UP!	$290 \text{ r}1$ $6,218 \div 7$	2
LINE THEM UP!	$1,268 \text{ r}5$ $1,357 \div 2$	2

LINE THEM UP!	$405 \text{ r}2$ FINISH!	2
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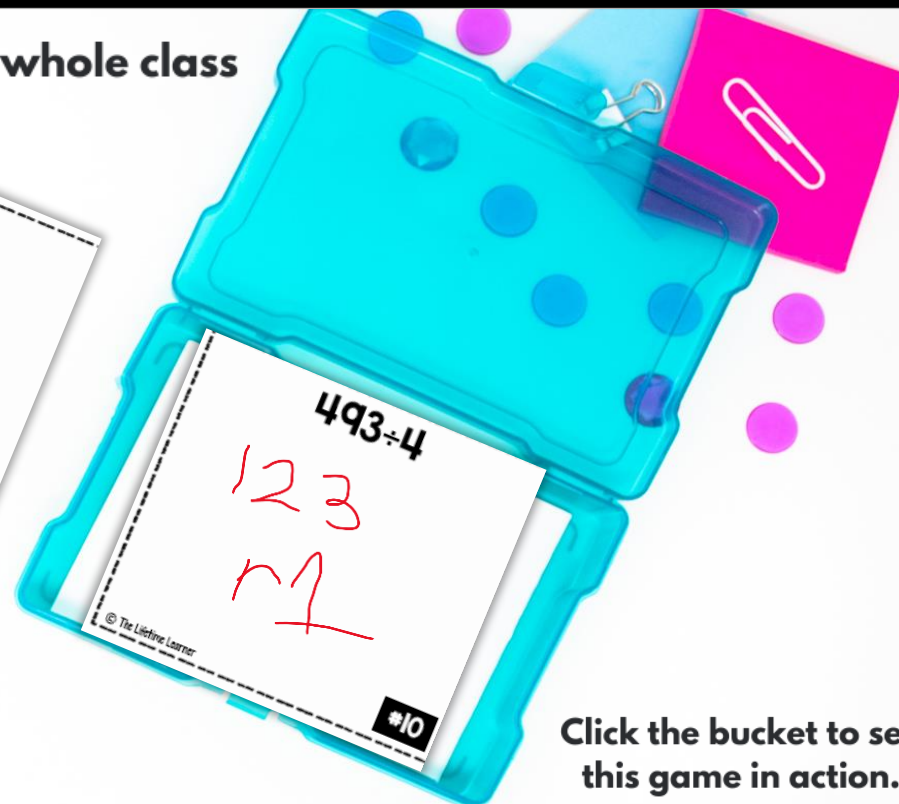
HOW TO PLAY:

- Students pair up in teams.
- Students race to line up their cards in order before the other team.



GAME #4

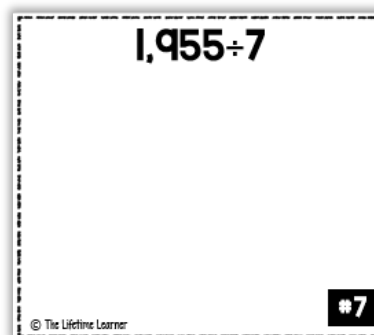
the perfect game to play with the whole class



Click the bucket to see this game in action.

HOW TO PLAY:

1. Students answer task cards.
2. If they get it right, they drop it in the bucket.
3. Students play for a set amount of time.
4. At the end of gameplay, the teacher draws task cards out of the bucket.
5. Any student whose task card gets pulled out gets a small prize.



BUY THE BUNDLE AND SAVE BIG!

4TH GRADE MATH BUNDLE

Partial Products
Name: *ericka*
Use your knowledge of partial products to solve each equation.

1. Equations: $2 \times 5,096$
 $5000 \times 2 = 10000$
 $0 \times 2 = 0$
 $90 \times 2 = 180$
 $6 \times 2 = 12$

2. Equations: $4 \times 8,923$
 $8000 \times 4 = 32000$
 $900 \times 4 = 3600$
 $20 \times 4 = 80$
 $3 \times 4 = 12$

3. Equations: $8 \times 5,624$
 $5000 \times 8 = 40000$
 $600 \times 8 = 4800$
 $20 \times 8 = 160$
 $4 \times 8 = 32$

4. Equations: $5 \times 2,089$
 $2000 \times 5 = 10000$
 $0 \times 5 = 0$
 $80 \times 5 = 400$
 $9 \times 5 = 45$

My Space Scene
To win, you must have 10 items in your space scene.
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6000+ PAGES

GAMES **ACTIVITIES** **WORKSHEETS**

YOU MAY ALSO LIKE:

GROCERY store **long division**
4.NBT.6

333 ÷ 9
410 ÷ 5
85 ÷ 5

4th GRADE
By: The Lifetime Learner

EDITABLE
ROOM TRANSFORMATION

A graphic for a grocery store room transformation. It features a green shopping bag filled with various fruits and vegetables. To the right, there are three small cards with division problems: 333 ÷ 9, 410 ÷ 5, and 85 ÷ 5. The background is white with green and orange accents.

LET'S GO CAMPING **division WORD PROBLEMS**
4.NBT.6

4th GRADE
By: The Lifetime Learner

EDITABLE
ROOM TRANSFORMATION

A graphic for a camping room transformation. It features a blue tent, a campfire, and various camping supplies like a backpack and a sleeping bag. The background is white with green and orange accents.

PARTY planner **multiply & divide review**
3.OA.8

4th GRADE
By: The Lifetime Learner

EDITABLE
ROOM TRANSFORMATION

A graphic for a party planner room transformation. It features a blue table with pink and yellow party hats, a pink table with a black chair, and various party supplies like balloons and streamers. The background is white with green and orange accents.

4TH GRADE WORKSHEET BUNDLE

ALL STANDARDS
PRINT & GO
163 WORKSHEETS

A graphic for a 4th grade worksheet bundle. It shows several colorful worksheets with math problems, diagrams, and illustrations. The background is white with green and orange accents.

GRAB IT! 35 MATH GAMES
4TH GRADE

GRAB IT!
 $1\frac{4}{8} + 2\frac{1}{6} =$

THE LIFETIME LEARNER

A graphic for a 4th grade math game called 'Grab It!'. It features a grid of 35 math problems, each with a different colored border and a 'GRAB IT!' label. The problems include fractions, decimals, and word problems. A hand is shown pointing to one of the problems.

4TH GRADE BUNDLE TASK CARDS

DIGITAL
PRINTABLE
130 GAMES

THE LIFETIME LEARNER

A graphic for a 4th grade bundle of task cards. It shows several colorful task cards with math problems, diagrams, and illustrations. The background is white with green and orange accents.