

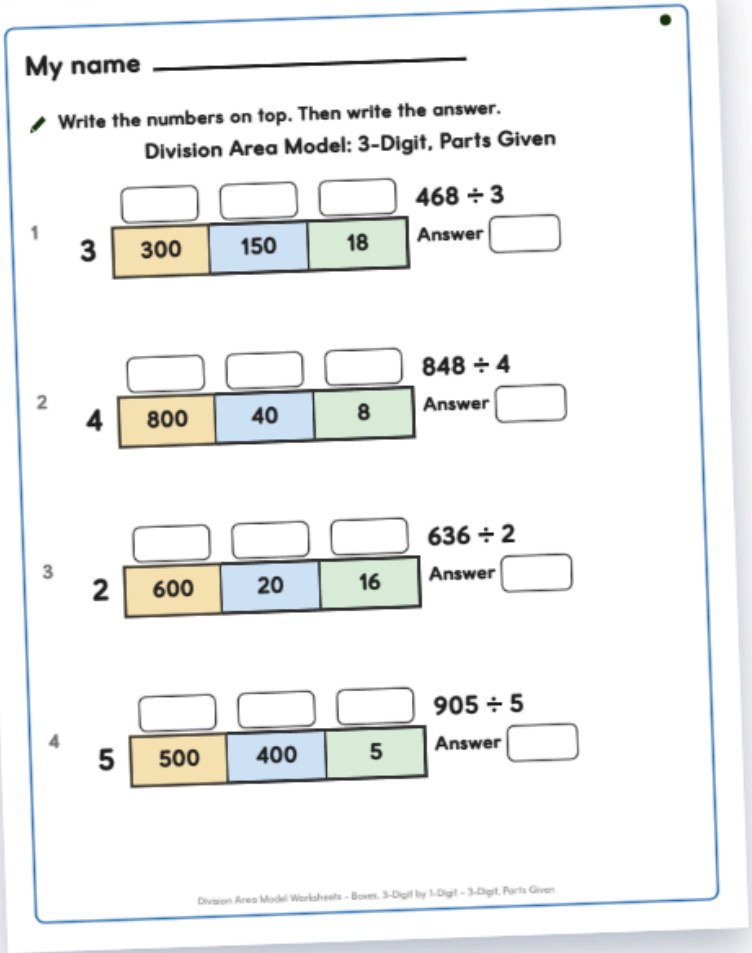

# DIVISION AREA MODEL




19 SHEETS

## Partial Quotients, Grades 4-5

3 LEVELS



My name _____

Write the numbers on top. Then write the answer.

**Division Area Model: 3-Digit, Parts Given**

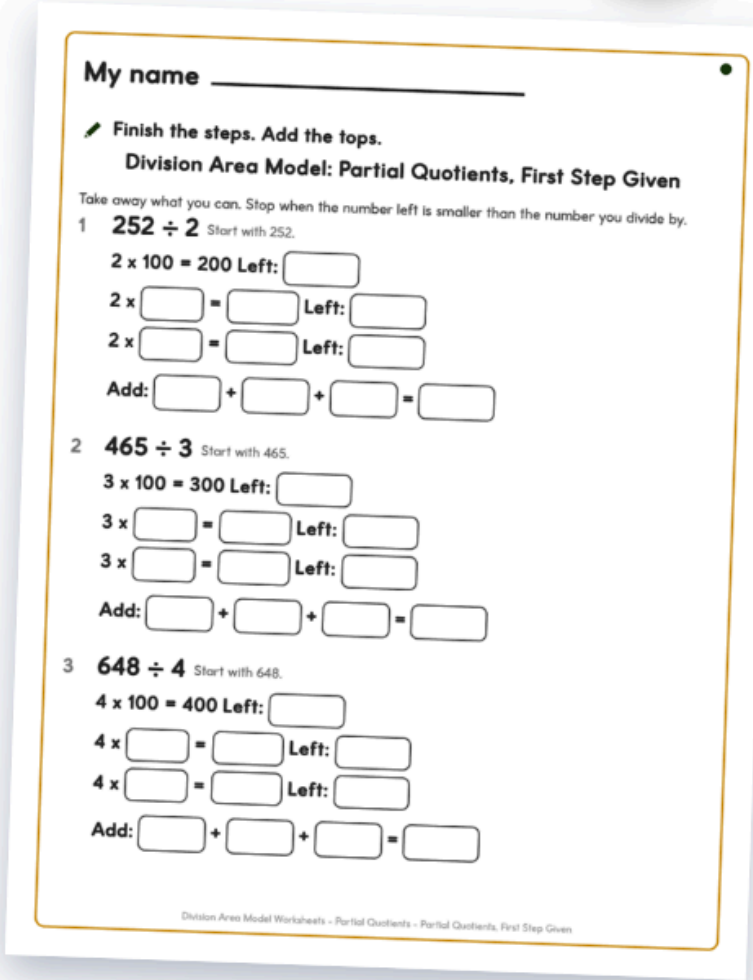
1 | 3 | 300 | 150 | 18 | 468 ÷ 3 | Answer

2 | 4 | 800 | 40 | 8 | 848 ÷ 4 | Answer

3 | 2 | 600 | 20 | 16 | 636 ÷ 2 | Answer

4 | 5 | 500 | 400 | 5 | 905 ÷ 5 | Answer

Division Area Model Worksheets - Boxes, 3-Digit by 1-Digit - 3-Digit, Parts Given



My name _____

Finish the steps. Add the tops.

**Division Area Model: Partial Quotients, First Step Given**

Take away what you can. Stop when the number left is smaller than the number you divide by.

1 **252 ÷ 2** Start with 252.

2 x 100 = 200 Left: ☐

2 x ☐ = ☐ Left: ☐

2 x ☐ = ☐ Left: ☐

Add: ☐ + ☐ + ☐ = ☐

2 **465 ÷ 3** Start with 465.

3 x 100 = 300 Left: ☐

3 x ☐ = ☐ Left: ☐

3 x ☐ = ☐ Left: ☐

Add: ☐ + ☐ + ☐ = ☐

3 **648 ÷ 4** Start with 648.

4 x 100 = 400 Left: ☐

4 x ☐ = ☐ Left: ☐

4 x ☐ = ☐ Left: ☐

Add: ☐ + ☐ + ☐ = ☐

Division Area Model Worksheets - Partial Quotients - Partial Quotients, First Step Given

# Terms of Use

Please read before you print your first page.

## One classroom license

- This file is for one classroom: one teacher, one group of students.
- Please do not share it, post it online, or sell it.
- Extra licenses for a team or a school are available on the product page.

## This is a fillable PDF

- Open it in a PDF reader (Adobe Acrobat Reader, Preview, or your browser), click into a box, type, and Save As.
- The name line and every number box are type-in fields. You can also print a page and let students write in the boxes with a pencil.
- It works offline once downloaded.

## Print at 100 percent

Turn off fit to page and shrink to fit so the boxes stay big enough for a child's handwriting. Pages print in color or in black and white; the box tints are light, so a gray print still reads.

## Student work

A filled-in tracker carries a student's name. Keep it in the data folder, and use a first name only on any page that leaves your hands.

## Need help?

If a box will not behave or a page will not print the way you expect, use Ask a Question on the product page before leaving a review. Every question is read, and a fix to the file ships as a free update: re-download it any time from My Purchases.

© Bright Path Sped. For single-classroom use by the original purchaser.

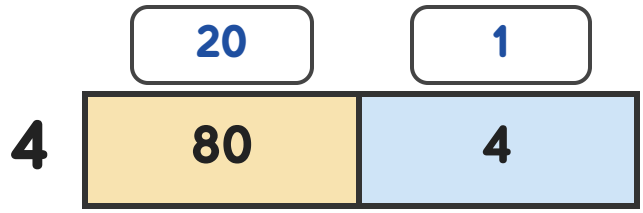
PREVIEW

# My name _____

## Read the example. Then try one.

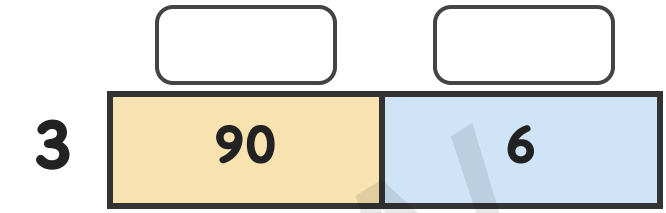
### Division Area Model: How to Use the Box

**84 ÷ 4 = 21**



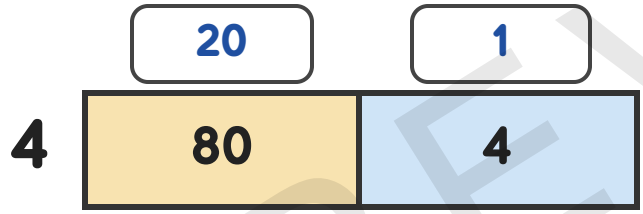

80 ÷ 4 = **20**
4 ÷ 4 = **1**
20 + 1 = **21**

**Your turn: 96 ÷ 3**




**Answer** ☐

**Left over? That is the remainder.**




85 ÷ 4
The parts add to 84.
85 - 84 = **1** left over.
Answer: **21 R 1**

**Three steps**

**1.** Split the big number into parts the divisor can share.
**2.** Divide each part. Write the answer on top of its box.
**3.** Add the numbers on top. That is the answer.

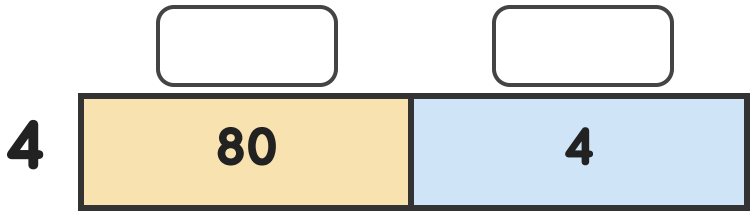
PREVIEW

My name _____

Write the numbers on top. Then write the answer.

## Division Area Model: 2-Digit, Parts Given

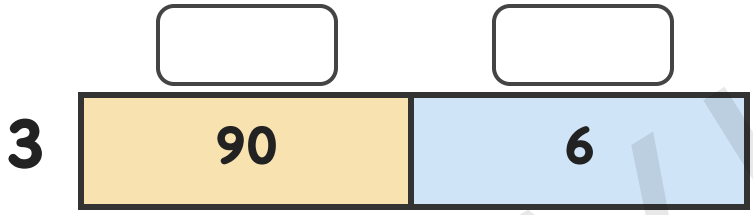
1




84 ÷ 4

Answer

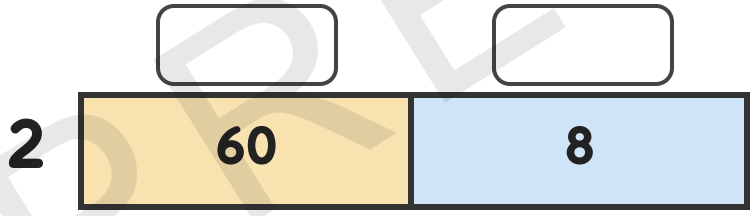
2




96 ÷ 3

Answer

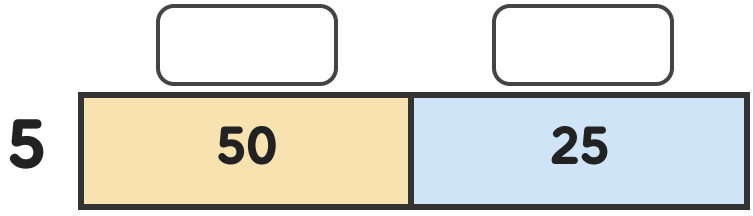
3




68 ÷ 2

Answer

4




75 ÷ 5

Answer

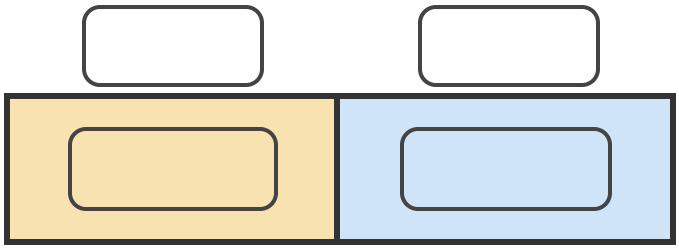
PREVIEW

My name _____

Fill the box. Write the answer. Check it.

## Division Area Model: 2-Digit, Check It

1

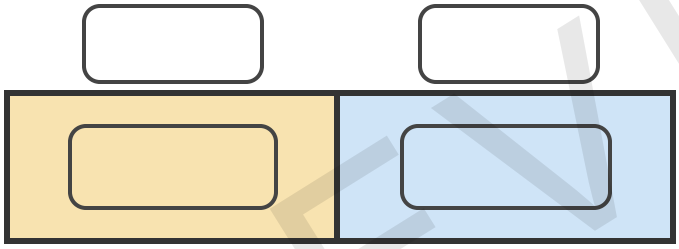



91 ÷ 7

Answer ☐

Check: ☐ x 7 = ☐

2

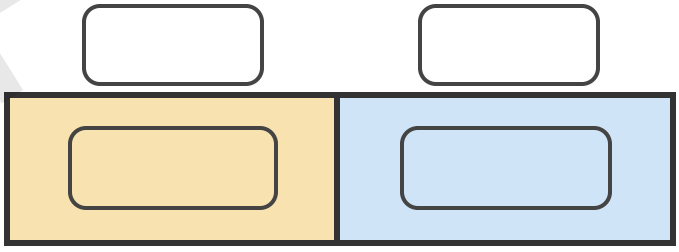



87 ÷ 3

Answer ☐

Check: ☐ x 3 = ☐

3




96 ÷ 8

Answer ☐

Check: ☐ x 8 = ☐

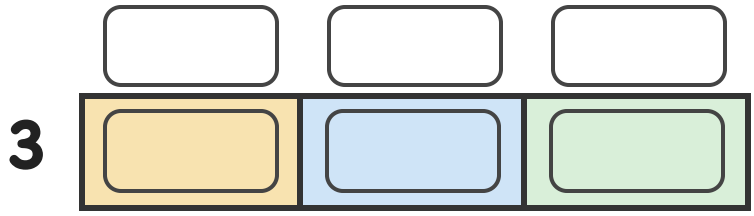
PREVIEW

My name _____

Fill the box. Write the answer.

## Division Area Model: 3-Digit, Fill the Box

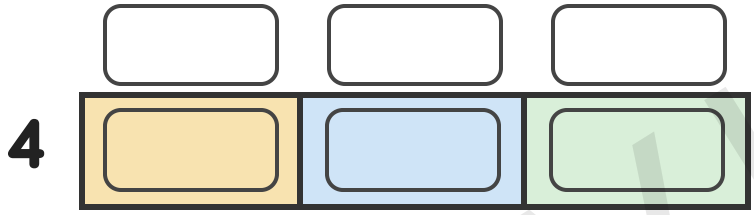
1




372 ÷ 3

Answer

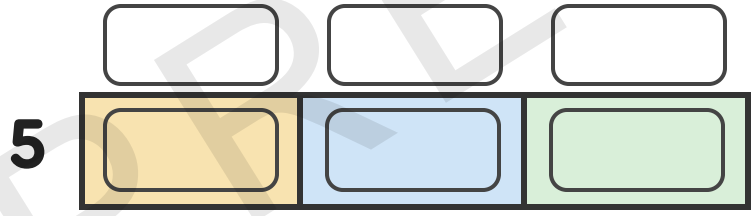
2




684 ÷ 4

Answer

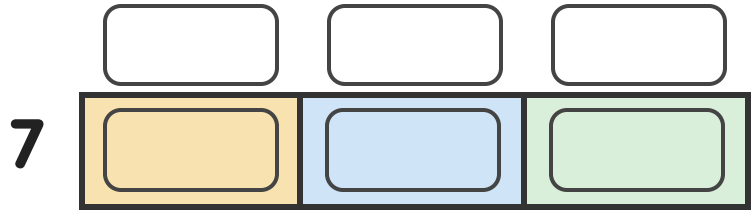
3




735 ÷ 5

Answer

4




952 ÷ 7

Answer

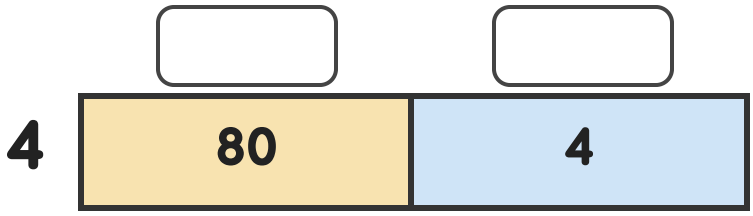
PREVIEW

My name _____

Write the numbers on top. Write the answer and what is left.

## Division Area Model: 2-Digit With Remainders, Parts Given

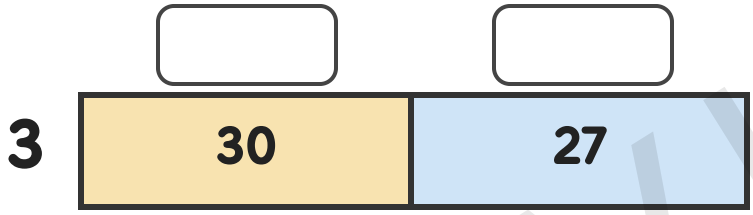
1




85 ÷ 4

Answer ____ R ____

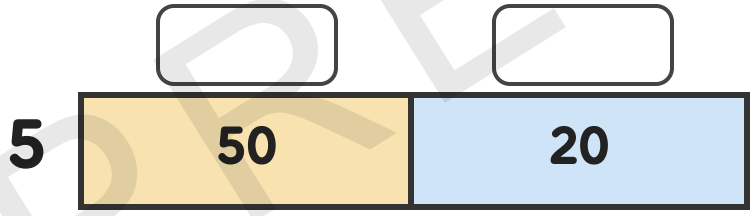
2




59 ÷ 3

Answer ____ R ____

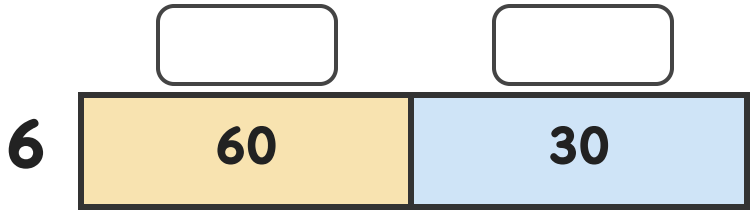
3




73 ÷ 5

Answer ____ R ____

4




94 ÷ 6

Answer ____ R ____

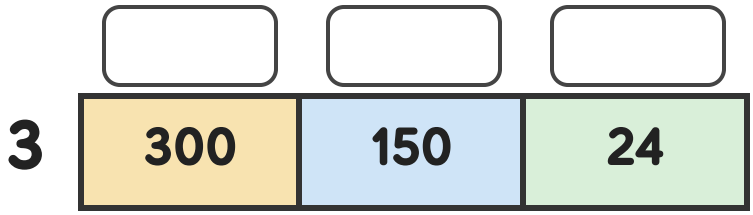
PREVIEW

My name _____

Write the numbers on top. Write the answer and what is left.

## Division Area Model: 3-Digit With Remainders, Parts Given

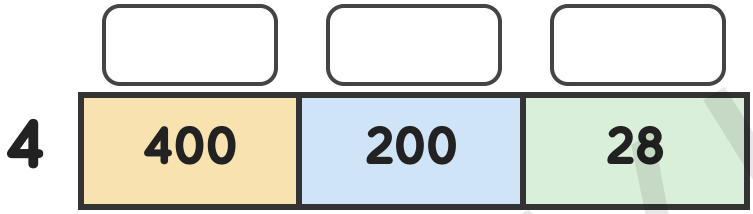
1




475 ÷ 3

Answer ____ R ____

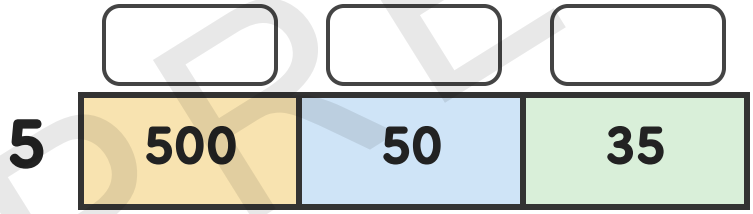
2




629 ÷ 4

Answer ____ R ____

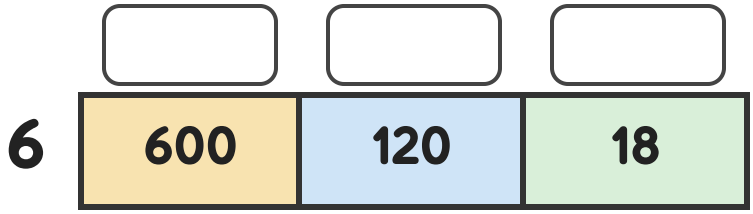
3




587 ÷ 5

Answer ____ R ____

4




743 ÷ 6

Answer ____ R ____

PREVIEW

# My name _____

**Finish the steps. Add the tops.**

## Division Area Model: Partial Quotients, First Step Given

Take away what you can. Stop when the number left is smaller than the number you divide by.

1 **252 ÷ 2** Start with 252.

**2 x 100 = 200 Left:** ☐

**2 x** ☐ **=** ☐ **Left:** ☐

**2 x** ☐ **=** ☐ **Left:** ☐

**Add:** ☐ **+** ☐ **+** ☐ **=** ☐

2 **465 ÷ 3** Start with 465.

**3 x 100 = 300 Left:** ☐

**3 x** ☐ **=** ☐ **Left:** ☐

**3 x** ☐ **=** ☐ **Left:** ☐

**Add:** ☐ **+** ☐ **+** ☐ **=** ☐

3 **648 ÷ 4** Start with 648.

**4 x 100 = 400 Left:** ☐

**4 x** ☐ **=** ☐ **Left:** ☐

**4 x** ☐ **=** ☐ **Left:** ☐

**Add:** ☐ **+** ☐ **+** ☐ **=** ☐

PREVIEW

# My name _____

**Take away what you can. Write what is left.**

## Division Area Model: Partial Quotients With Remainders

Take away what you can. Stop when the number left is smaller than the number you divide by.

1 **467 ÷ 3** Start with 467.

3 x ☐ = ☐ **Left:** ☐

3 x ☐ = ☐ **Left:** ☐

3 x ☐ = ☐ **Left:** ☐

**Add:** ☐ + ☐ + ☐ = ☐ **R** ☐

2 **629 ÷ 5** Start with 629.

5 x ☐ = ☐ **Left:** ☐

5 x ☐ = ☐ **Left:** ☐

5 x ☐ = ☐ **Left:** ☐

**Add:** ☐ + ☐ + ☐ = ☐ **R** ☐

3 **743 ÷ 4** Start with 743.

4 x ☐ = ☐ **Left:** ☐

4 x ☐ = ☐ **Left:** ☐

4 x ☐ = ☐ **Left:** ☐

**Add:** ☐ + ☐ + ☐ = ☐ **R** ☐

PREVIEW

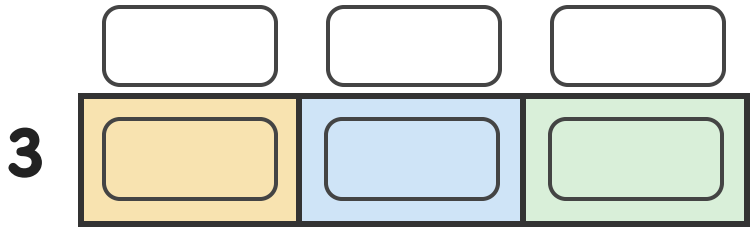
# My name _____

## Read. Fill the box. Write how many and what is left.

### Division Area Model: Word Problems With Remainders

A class has 487 paper stars to put in 3 jars. Each jar gets the same number. How many in each jar, and how many are left over?

1



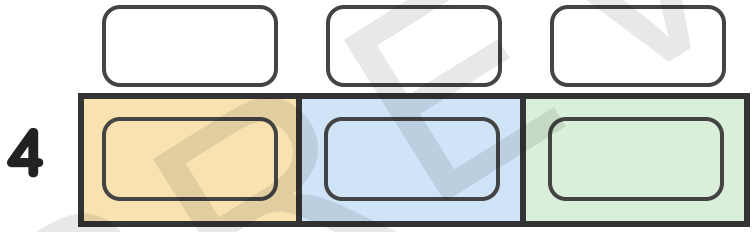

**487 ÷ 3**

**Answer** _____ **R** _____

stars

A shop has 639 buttons to put in 4 bags. Each bag gets the same number. How many in each bag, and how many are left over?

2



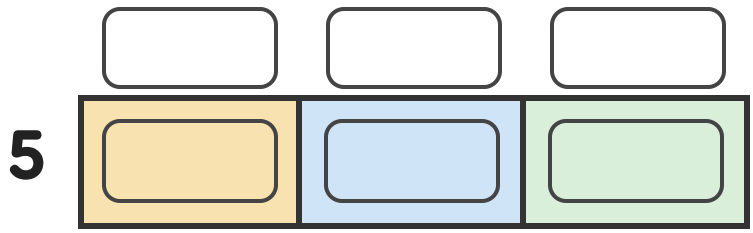

**639 ÷ 4**

**Answer** _____ **R** _____

buttons

A coach has 758 balloons to hand out to 5 teams. Each team gets the same number. How many for each team, and how many are left over?

3




**758 ÷ 5**

**Answer** _____ **R** _____

balloons

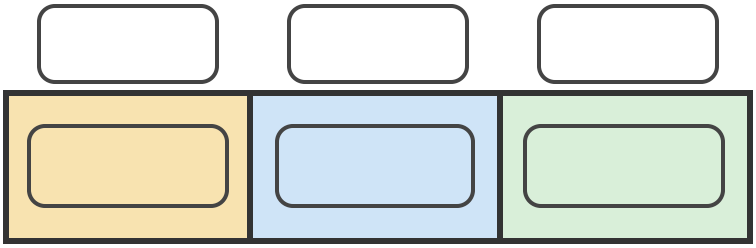
PREVIEW

# My name _____

**Pick numbers. Fill the box.**

## Division Area Model: Make Your Own Box

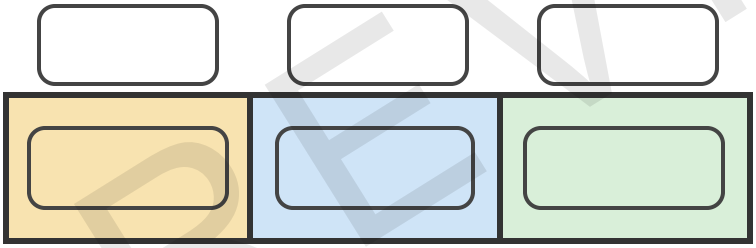
1



☐ ÷ ☐

Answer ☐ R ☐

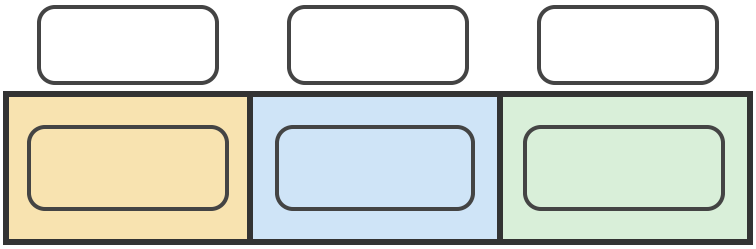
2



☐ ÷ ☐

Answer ☐ R ☐

3



☐ ÷ ☐

Answer ☐ R ☐

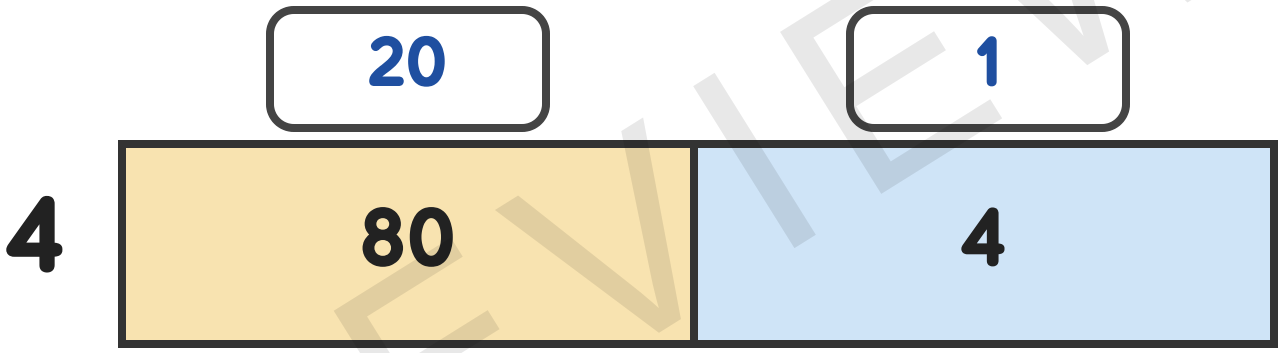
PREVIEW

Preview - Bright Path Sped

# Left Over

A remainder is what is left when no more groups fit.

$$85 \div 4$$




**The cells add to 84.**

**85 - 84 = 1**

$$85 \div 4 = 21 \text{ R } 1$$

**Check it: 21 x 4 + 1 = 85**

PREVIEW

# Answer Key 2

Each answer is for the problem number on its page. Where students choose the parts or the steps, one way is shown.

## Page 13: 3-Digit With Remainders, Parts Given

1) 475 ÷ 3 = **158 R 1** (top 100 + 50 + 8; cells 300, 150, 24)

2) 629 ÷ 4 = **157 R 1** (top 100 + 50 + 7; cells 400, 200, 28)

3) 587 ÷ 5 = **117 R 2** (top 100 + 10 + 7; cells 500, 50, 35)

4) 743 ÷ 6 = **123 R 5** (top 100 + 20 + 3; cells 600, 120, 18)

## Page 14: 3-Digit With Remainders, Check It

1) 385 ÷ 2 = **192 R 1** (top 100 + 90 + 2; cells 200, 180, 4)

2) 527 ÷ 3 = **175 R 2** (top 100 + 70 + 5; cells 300, 210, 15)

3) 749 ÷ 4 = **187 R 1** (top 100 + 80 + 7; cells 400, 320, 28)

## Page 15: Partial Quotients, First Step Given

1) 252 ÷ 2 = **126** (take away 200, 40, 12; left 52, 12, 0)

2) 465 ÷ 3 = **155** (take away 300, 150, 15; left 165, 15, 0)

3) 648 ÷ 4 = **162** (take away 400, 240, 8; left 248, 8, 0)

## Page 16: Partial Quotients, 3-Digit

1) 846 ÷ 6 = **141** (take away 600, 240, 6; left 246, 6, 0)

2) 918 ÷ 6 = **153** (take away 600, 300, 18; left 318, 18, 0)

3) 876 ÷ 4 = **219** (take away 800, 40, 36; left 76, 36, 0)

## Page 17: Partial Quotients With Remainders

1) 467 ÷ 3 = **155 R 2** (take away 300, 150, 15; left 167, 17, 2)

2) 629 ÷ 5 = **125 R 4** (take away 500, 100, 25; left 129, 29, 4)

3) 743 ÷ 4 = **185 R 3** (take away 400, 320, 20; left 343, 23, 3)

## Reading a remainder

The remainder is always smaller than the divisor. For 85 ÷ 4, the cells hold 80 and 4, which add to 84. 85 - 84 = 1, so the answer is 21 R 1. Check: 21 x 4 + 1 = 85.

PREVIEW

Preview · Bright Path Sped

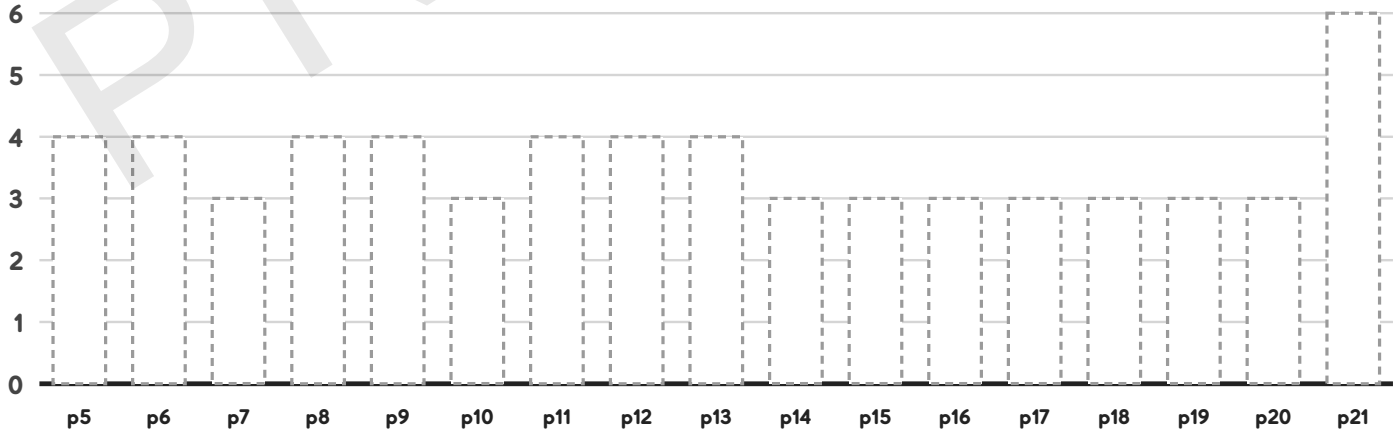
# Tracker and Roll-Up

Write the date and how many were right. Then color the column for that sheet. A blank row means not done yet, never wrong.

Student _____ Teacher _____ School year _____

| Page | Sheet | Date | Right | Out of | Notes |
|---|---|---|---|---|---|
| 5 | 2-Digit, Parts Given | | | 4 | |
| 6 | 2-Digit, Fill the Box | | | 4 | |
| 7 | 2-Digit, Check It | | | 3 | |
| 8 | 3-Digit, Parts Given | | | 4 | |
| 9 | 3-Digit, Fill the Box | | | 4 | |
| 10 | 3-Digit, Check It | | | 3 | |
| 11 | 2-Digit With Remainders, Parts Given | | | 4 | |
| 12 | 2-Digit With Remainders, Fill the Box | | | 4 | |
| 13 | 3-Digit With Remainders, Parts Given | | | 4 | |
| 14 | 3-Digit With Remainders, Check It | | | 3 | |
| 15 | Partial Quotients, First Step Given | | | 3 | |
| 16 | Partial Quotients, 3-Digit | | | 3 | |
| 17 | Partial Quotients With Remainders | | | 3 | |
| 18 | Word Problems, 2-Digit | | | 3 | |
| 19 | Word Problems, 3-Digit | | | 3 | |
| 20 | Word Problems With Remainders | | | 3 | |
| 21 | Check It, Multiply Back | | | 6 | |

Roll-up: color one column for each sheet, up to the number right. The dashed box is the most it can be.




Notes for the team

PREVIEW

# Division Boxes at Home

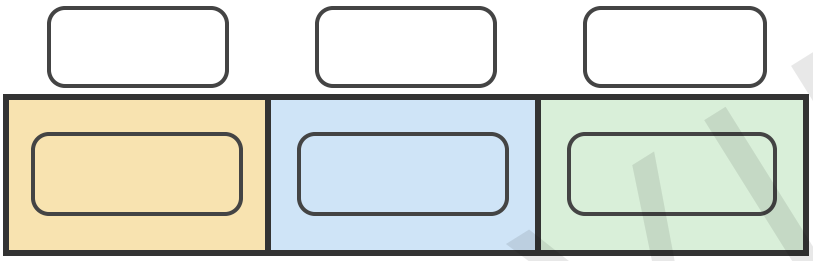
Send this page home with a child, or hand it to a family at a conference.

Student _____ Week of _____

## How to help at home, in three steps

- Pick a division problem that feels hard, such as 96 divided by 3. Say it out loud with your child.
- Split the big number into parts that are easy to share, such as 90 and 6. Write one part in each cell of the box.
- Divide each part and write the answer on top. Add the two tops. Then multiply back to check.

## Our family box



□ ÷ □

**Answer** □ **R** □

## Try saying

- "Which part is easy to share first?"
- "Is anything left over? How do you know?"

Note from the teacher

Note from home

PREVIEW