

North Penn School District
Elementary Math Parent Letter

Grade 2

Unit 4 – Chapter 6: 3-Digit Addition and Subtraction

Examples for each lesson

Lesson 6.1

**Draw to Represent
3-Digit Addition**

Use place value understanding and properties of operations to add and subtract.

Add 213 and 124.
 Draw quick pictures of 213 and 124.

Count the hundreds, tens, and ones.

3 hundreds 3 tens 7 ones

Hundreds	Tens	Ones
□□		○ ○ ○
□		○ ○ ○ ○

Write the number. 337

Lesson 6.2

Break Apart 3-Digit Addends

Use place value understanding and properties of operations to add and subtract.

$$\begin{array}{r} 743 \\ + 124 \\ \hline \end{array}$$

Break apart each addend.
 Write the value of each digit.

$743 = \underline{700} + \underline{40} + \underline{3}$
 $124 = \underline{100} + \underline{20} + \underline{4}$























































Add the hundreds, tens, and ones.
 Then add these sums together.

	Hundreds	Tens	Ones	
743	700	+ 40	+ 3	
+ 124	100	+ 20	+ 4	
	800	+ 60	+ 7	= 867

Lesson 6.3

3-Digit Addition: Regroup Ones





































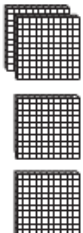


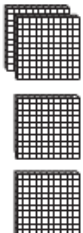


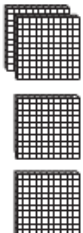


Use place value understanding and properties of operations to add and subtract.

<p>Add. 318 $+ 256$</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">Hundreds</th> <th style="width: 33%;">Tens</th> <th style="width: 33%;">Ones</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Hundreds	Tens	Ones							<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">Hundreds</th> <th style="width: 33%;">Tens</th> <th style="width: 33%;">Ones</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>8</td> </tr> <tr> <td>+</td> <td>5</td> <td>6</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black;"></td> </tr> </tbody> </table>	Hundreds	Tens	Ones	3	1	8	+	5	6						
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Lesson 6.4

3-Digit Addition: Regroup Tens

Use place value understanding and properties of operations to add and subtract.

<p>Add. 271 $+ 158$</p> <p>Add the ones. $1 + 8 = \underline{9}$</p>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">Hundreds</th> <th style="width: 33%;">Tens</th> <th style="width: 33%;">Ones</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Hundreds	Tens	Ones							<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 33%;">Hundreds</th> <th style="width: 33%;">Tens</th> <th style="width: 33%;">Ones</th> </tr> </thead> <tbody> <tr> <td><input type="text" value="2"/></td> <td><input type="text" value="7"/></td> <td><input type="text" value="1"/></td> </tr> <tr> <td>$+$</td> <td><input type="text" value="1"/></td> <td><input type="text" value="5"/></td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;"></td> <td><input type="text" value="8"/></td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;"></td> <td><input type="text" value="9"/></td> </tr> </tbody> </table>	Hundreds	Tens	Ones	<input type="text" value="2"/>	<input type="text" value="7"/>	<input type="text" value="1"/>	$+$	<input type="text" value="1"/>	<input type="text" value="5"/>			<input type="text" value="8"/>			<input type="text" value="9"/>			
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More information on this strategy is available on Animated Math Model #35.

Lesson 6.5

Addition: Regroup Ones and Tens

Use place value understanding and properties of operations to add and subtract.

Sometimes, you may need to regroup more than once.

$$\begin{array}{r} 189 \\ + 623 \\ \hline \end{array}$$

Step 1 Add the ones.

There are 12 ones in all.

Regroup 12 ones as 1 ten 2 ones.

$$\begin{array}{r|l|l} & 1 & 9 \\ + & 6 & 3 \\ \hline & & 2 \end{array}$$

Step 2 Add the tens.

There are 11 tens in all.

Regroup 11 tens as 1 hundred 1 ten.

$$\begin{array}{r|l|l} & 1 & 9 \\ + & 6 & 3 \\ \hline & 1 & 2 \end{array}$$

Step 3 Add the hundreds.

There are 8 hundreds in all.

$$\begin{array}{r|l|l} & 1 & 9 \\ + & 6 & 3 \\ \hline 8 & 1 & 2 \end{array}$$

More information on this strategy is available on Animated Math Model #36.

Lesson 6.6

Problem Solving • 3-Digit Subtraction

Use place value understanding and properties of operations to add and subtract.

There were 237 books on the shelves.

Mr. Davies took 126 books off the shelves.

How many books were still on the shelves?

Unlock the Problem

What do I need to find?

how many books

were still on the shelves

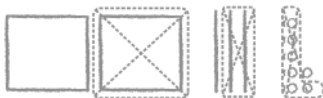
What information do

I need to use?

There were 237 books on the shelves.

Mr. Davies took 126 books off the shelves.

Show how to solve the problem.



There were 111 books still on the shelves.

Lesson 6.7

3-Digit Subtraction: Regroup Tens

Use place value understanding and properties of operations to add and subtract.

Subtract. $463 - 317$

Are there enough ones to subtract 7? no
Regroup 1 ten as 10 ones.

Hundreds	Tens	Ones

Hundreds	Tens	Ones
4	6	3
- 3	1	7

There are 13 ones and 5 tens.

Subtract the ones.
 $13 - 7 = 6$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
4	5	13
- 3	1	7
		6

Subtract the tens.
 $5 - 1 = 4$

Subtract the hundreds.
 $4 - 3 = 1$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
4	5	13
- 3	1	7
1	4	6

More information on this strategy is available on Animated Math Model #37.

Lesson 6.8

3-Digit Subtraction: Regroup Hundreds

Use place value understanding and properties of operations to add and subtract.

Subtract. $326 - 174$

Subtract the ones.
 $6 - 4 = 2$

Are there enough tens to subtract 7 tens? no
Regroup 1 hundred as 10 tens.

Now there are 12 tens and 2 hundreds.

Subtract the tens.
 $12 - 7 = 5$

Subtract the hundreds.
 $2 - 1 = 1$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
3	2	6
- 1	7	4
		2

Hundreds	Tens	Ones

Hundreds	Tens	Ones
3	2	6
- 1	7	4
2	5	2

More information on this strategy is available on Animated Math Model #38.

Lesson 6.9

Subtraction: Regroup Hundreds and Tens

Use place value understanding and properties of operations to add and subtract.

You may need to regroup more than once.

$$\begin{array}{r} 282 \\ - 198 \\ \hline \end{array}$$

Regroup 1 ten as 10 ones. Subtract the ones.

$$\begin{array}{r} 712 \\ 2\cancel{8}\cancel{2} \\ - 198 \\ \hline 4 \end{array}$$

Regroup 1 hundred as 10 tens. Subtract the tens.

$$\begin{array}{r} 1712 \\ \cancel{1}\cancel{7}\cancel{1}2 \\ 2\cancel{8}\cancel{2} \\ - 198 \\ \hline 84 \end{array}$$

Subtract the hundreds.

$$\begin{array}{r} 1712 \\ \cancel{1}\cancel{7}\cancel{1}2 \\ 2\cancel{8}\cancel{2} \\ - 198 \\ \hline 84 \end{array}$$

More information on this strategy is available on Animated Math Models # 37, 38.

Lesson 6.10

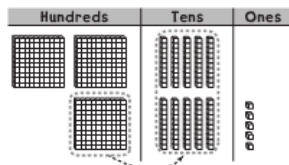
Regrouping with Zeros

Use place value understanding and properties of operations to add and subtract.

Subtract 138 from 305.

There are not enough ones to subtract 8.

Since there are 0 tens, regroup 3 hundreds as 2 hundreds 10 tens.

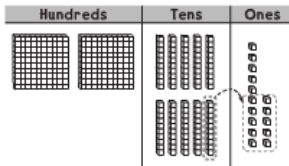


$$\begin{array}{r} 210 \\ 305 \\ - 138 \\ \hline \end{array}$$

Then regroup 10 tens 5 ones as 9 tens 15 ones.

Subtract the ones.

$$15 - 8 = 7$$



$$\begin{array}{r} 915 \\ 305 \\ - 138 \\ \hline 7 \end{array}$$

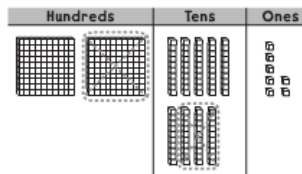
Subtract the tens.

$$9 - 3 = 6$$

Subtract the hundreds.

$$2 - 1 = 1$$

So, $305 - 138 = 167$.



$$\begin{array}{r} 915 \\ 305 \\ - 138 \\ \hline 167 \end{array}$$

Vocabulary

Addends – numbers added together in addition problems

Difference – the answer in a subtraction problem

Hundred – a group of 100 ones or 10 tens

Regroup – to exchange amounts of equal value to rename a number

Sum – the answer in an addition problem