

Name _____

Algebra • Number Patterns

A **pattern** is an ordered set of numbers or objects.
The order helps you predict what will come next.

Use the addition table to find patterns.

- Color the row that starts with 1. What pattern do you see?

The numbers increase by 1.

- Color the column that starts with 1. What pattern do you see?

The numbers increase by 1. The numbers

are the same as in the row starting with 1.

- Circle the sum of 4 in the column you colored. Circle the addends for that sum. What two addition sentences can you write for that sum of 4?

$3 + 1 = 4$ and $1 + 3 = 4$

The addends are the same. The sum is the same.

The **Commutative Property of Addition** states that you can add two or more numbers in any order and get the same sum.

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

Use the addition table to find the sum.

1. $2 + 3 = \underline{\quad}$ $3 + 2 = \underline{\quad}$

2. $2 + 0 = \underline{\quad}$ $0 + 2 = \underline{\quad}$

Find the sum. Then use the Commutative Property of Addition to write the related addition sentence.

3. $3 + 0 = \underline{\quad}$

4. $4 + 1 = \underline{\quad}$

5. $2 + 3 = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

Pattern Pairs and Quads

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

1. Look at a pair of numbers next to each other in any *row* of the addition table. Is their sum even or odd? **Explain.**

2. Look at a pair of numbers next to each other in any *column* of the addition table. Is their sum even or odd? **Explain.**

3. **Stretch Your Thinking** Look at any square of four numbers in the addition table. One square is outlined as an example. Is the sum of the four numbers even or odd? **Explain.**

Name _____

Round to the Nearest Ten or Hundred

When you **round** a number, you find a number that tells you *about* how much or *about* how many.

Use place value to round 76 to the nearest ten.

Step 1 Look at the digit to the right of the tens place.

- If the ones digit is 5 or more, the tens digit increases by one.
- If the ones digit is less than 5, the tens digit stays the same.

76
|
ones place

The digit in the ones place is 6.

$$6 > 5$$

Step 2 Write zero for the ones digit.

So, the digit 7 in the tens place increases to 8.

So, 76 rounded to the nearest ten is **80**.

Think: To round to the nearest hundred, look at the tens digit. So, 128 rounded to the nearest hundred is **100**.

128
|
tens place

Round to the nearest ten.

1. 24 _____

2. 15 _____

3. 47 _____

4. 42 _____

5. 81 _____

6. 65 _____

Round to the nearest hundred.

7. 176 _____

8. 395 _____

9. 431 _____

10. 421 _____

11. 692 _____

12. 470 _____

Name _____

Round and About

Round the distances to the nearest hundred and ten.

		Nearest Hundred	Nearest Ten
1.	628 miles	_____ miles	_____ miles
2.	704 miles	_____ miles	_____ miles
3.	58 miles	_____ miles	_____ miles

4.  **Explain** why 58 can be rounded to the nearest hundred even though there is not a digit in the hundreds place.

5. **Stretch Your Thinking** Write a number that is the same when rounded to the nearest hundred and ten. **Explain.**

Name _____

Estimate Sums

An **estimate** is a number close to an exact amount.

You can use **compatible numbers** to estimate.

Compatible numbers are easy to compute mentally and are close to the real numbers.

Estimate. Use compatible numbers.

$$73 + 21 = \blacksquare$$

So, $73 + 21$ is about **100**.

$$\begin{array}{r} 73 \\ + 21 \\ \hline \end{array} \quad \begin{array}{r} 75 \\ + 25 \\ \hline 100 \end{array}$$

Another way to estimate is to round numbers to the same place value.

Estimate. Round each number to the nearest hundred. $214 + 678 = \blacksquare$

Step 1 Look at the digit to the right of the hundreds place.

- $1 < 5$, so the digit 2 stays the same.
- $7 > 5$, so the digit 6 increases by 1 to become 7.

$$\begin{array}{r} 214 \\ + 678 \\ \hline \end{array} \quad \begin{array}{r} 200 \\ + 700 \\ \hline 900 \end{array}$$

Step 2 Write zeros for the tens and ones places.

So, $214 + 678$ is about **900**.

Use rounding or compatible numbers to estimate the sum.

$$\begin{array}{r} 1. \quad 42 \\ + 36 \\ \hline \end{array} \quad \begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 523 \\ + 117 \\ \hline \end{array} \quad \begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 235 \\ + 374 \\ \hline \end{array} \quad \begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 23 \\ + 99 \\ \hline \end{array} \quad \begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 254 \\ + 167 \\ \hline \end{array} \quad \begin{array}{r} + \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 299 \\ + 199 \\ \hline \end{array} \quad \begin{array}{r} + \\ \hline \end{array}$$

Name _____

Estimating the Crowd

It is Kids' Month at the city baseball park. The table shows how many people went to the baseball games during Kids' Month. Estimate to answer each question.

Attendance		
Game	Adults	Children
Game 1	235	324
Game 2	257	399
Game 3	189	404
Game 4	477	398
Game 5	317	197

1. Which game did the fewest people attend? _____

2. Which game did about 650 people attend? _____

3. Which game did the most people attend? _____

4. **Stretch Your Thinking** Suppose the total attendance at Game 6 was about 800 and there were more children than adults at the game. About how many children and how many adults could have attended? **Explain** how you know your answer is correct.

Name _____

Mental Math Strategies for Addition

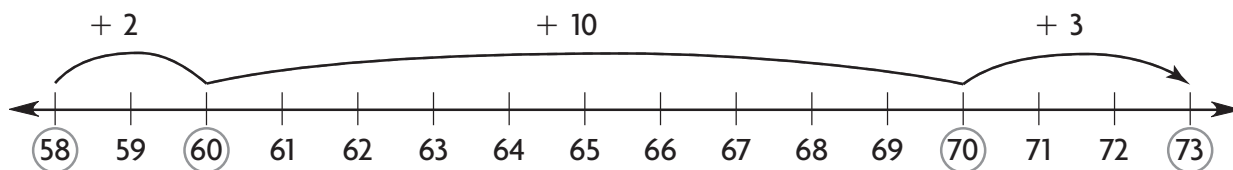
You can count by tens and ones to find a sum.

Find $58 + 15$.

Step 1 Count on to the nearest ten. Start at 58. Count to 60.

Step 2 Count by tens. Start at 60. Count to 70.

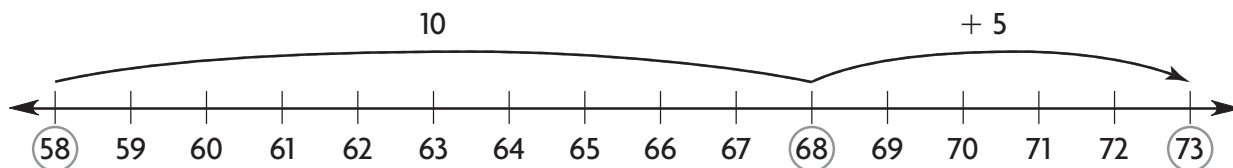
Step 3 Then count by ones. Start at 70. Count to 73.



Think: $58 + 2 + 10 + 3 = 73$

So, $58 + 15 = 73$.

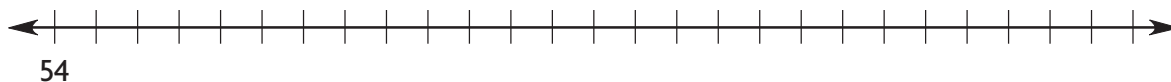
You can also count on by tens first and then by ones.



Think: $58 + 10 + 5 = 73$

So, $58 + 15 = 73$.

- Count by tens and ones to find $54 + 26$. Draw jumps and label the number line to show your thinking.



$54 + 26 = \underline{\hspace{2cm}}$

Musical Math

Use mental math strategies to solve the problem.

Use this information for 1–3.

There are 35 more musicians in the String section of a city Symphony Orchestra than in its Brass section. There are 29 musicians in the Brass section.

1. How many musicians are in the String and Brass sections of the Symphony Orchestra?

2. Suppose 2 more musicians joined the String section of the Symphony Orchestra, and 4 musicians left the Brass section. How many musicians would there be in the String and Brass sections?

3. How many musicians would the city Symphony Orchestra need to add now to have at least 100 musicians in its String and Brass sections?

Use this information for 4–6.

The String section of a city Symphony Orchestra has 10 more musicians playing First and Second Violins than Violas and Cellos. It has 23 Violas and Cellos.

4. How many First and Second Violins, Violas, and Cellos are in the Symphony Orchestra?

5. Suppose the Symphony Orchestra added 2 Violas and 2 Cellos. How many musicians would be in the String section of the Symphony Orchestra then?

6. How many String musicians would the Symphony Orchestra need to add now to have exactly 75 musicians in its String section?

7.  **Write Math** How do mental math strategies help you solve problems such as the ones above?

Algebra • Use Properties to Add

You can use addition properties and strategies to help you add.

Find $3 + 14 + 21$.

The **Commutative Property of Addition** states that you can add numbers in any order and still get the same sum.

Step 1 Look for numbers that are easy to add.

Think: Make doubles.

$$3 + 1 = 4 \text{ and } 4 + 4 = 8.$$

Step 2 Use the Commutative Property to change the order.

$$3 + 14 + 21 = 3 + 21 + 14$$

Step 3 Add.

$$3 + 21 + 14 = 24 + 14$$

$$24 + 14 = 30 + 8$$

$$\text{So, } 3 + 14 + 21 = 38.$$

Find $7 + (3 + 22)$.

The **Associative Property of Addition** states that you can group addends in different ways and still get the same sum.

Step 1 Look for numbers that are easy to add.

Think: Make a ten. $7 + 3 = 10$

Step 2 Use the Associative Property to change the grouping.

$$7 + (3 + 22) = (7 + 3) + 22$$

Step 3 Add.

$$(7 + 3) + 22 = 10 + 22$$

$$10 + 22 = 32$$

$$\text{So, } 7 + (3 + 22) = 32.$$

Use addition properties and strategies to find the sum.

1. $2 + 15 + 8 =$ _____

2. $19 + 36 + 1 =$ _____

3. $25 + 44 + 5 =$ _____

4. $12 + 36 + 18 + 14 =$ _____

5. $23 + 14 + 23 =$ _____

6. $11 + 15 + 19 + 14 =$ _____

Properties on Parade

Use addition properties to find the unknown numbers.
Write the property that you used.

1. $(\blacksquare + 7) + 30 = 47$

2. $(44 + 8) + 52 = \blacksquare + (\blacksquare + 52)$

3. $(96 + 7) + 73 = \blacksquare + (\blacksquare + 73)$

4. $(9 + 17) + \blacksquare = 59$

5. $(\blacksquare + 3) + 75 = 98$

6. $5 + \blacksquare + 65 = 89$

7.  **Write Math** **Explain** how using addition properties can make adding easier.

Name _____

Use the Break Apart Strategy to Add

You can use the break apart strategy to add.

Add. $263 + 215$

Think and Record

Step 1 Estimate. Round to the nearest hundred.

$$300 + 200 = 500$$

Step 2 Start with the hundreds. Break apart the addends. Then add each place value.

$$\begin{array}{r} 263 = 200 + 60 + 3 \\ 215 = 200 + 10 + 5 \\ \hline 400 + 70 + 8 \end{array}$$

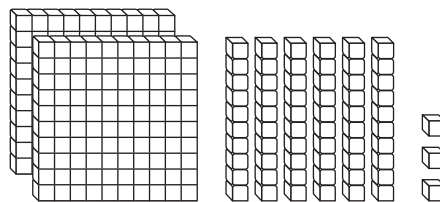
Step 3 Add the sums.

$$400 + 70 + 8 = 478$$

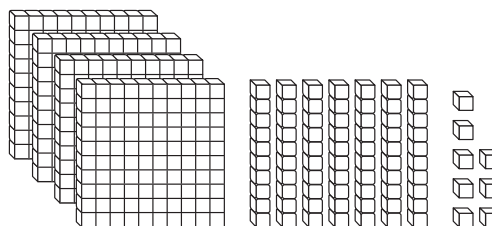
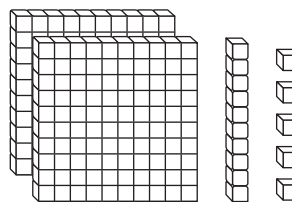
So, $263 + 215 = 478$.

Model

$263 = 2 \text{ hundreds} + 6 \text{ tens} + 3 \text{ ones}$



$215 = 2 \text{ hundreds} + 1 \text{ ten} + 5 \text{ ones}$



$4 \text{ hundreds} + 7 \text{ tens} + 8 \text{ ones} = 478$

Estimate. Then use the break apart strategy to find the sum.

1. Estimate: _____

$$\begin{array}{r} 242 = \\ + 536 = \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 469 = \\ + 413 = \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 385 = \\ + 519 = \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 527 = \\ + 266 = \end{array}$$

Name _____

Find the Errors

Find the error in each problem. Describe the error.
Then write the correct sum.

1. Asha used the break apart strategy to find $405 + 503$. She added the place values and got 980.

$$\begin{array}{r} 400 + 50 + 0 \\ + 500 + 30 + 0 \\ \hline 900 + 80 + 0 = 980 \end{array}$$

2. Mick used the break apart strategy to find $580 + 348$. He added the place values and got 828.

$$\begin{array}{r} 500 + 80 + 0 \\ + 300 + 40 + 8 \\ \hline 800 + 120 + 8 = 828 \end{array}$$

3. Karl used the break apart strategy to find $409 + 325$ and got a sum of 814.

$$\begin{array}{r} 400 + 90 + 9 \\ + 300 + 20 + 5 \\ \hline 700 + 110 + 4 = 814 \end{array}$$

4.  **Write Math** Why is it important to write any zero in the correct place-value position when using the break apart strategy to add?

Name _____

Use Place Value to Add

You can use place value to add 3-digit numbers.

Add. $268 + 195$ **Estimate.** $300 + 200 = 500$

Step 1 Add the ones. If there are 10 or more ones, regroup as tens and ones.

$$\begin{array}{r} 1 \\ 268 \\ + 195 \\ \hline 3 \end{array}$$

8 ones + 5 ones = 13 ones
13 ones = 1 ten 3 ones

Step 2 Add the tens. Regroup the tens as hundreds and tens.

$$\begin{array}{r} 11 \\ 268 \\ + 195 \\ \hline 63 \end{array}$$

1 ten + 6 tens + 9 tens = 16 tens
16 tens = 1 hundred 6 tens

Step 3 Add the hundreds.

$$\begin{array}{r} 11 \\ 268 \\ + 195 \\ \hline 463 \end{array}$$

1 hundred + 2 hundreds + 1 hundred = 4 hundreds

So, $268 + 195 = 463$.

Estimate. Then find the sum.

1. Estimate: _____

$$\begin{array}{r} 156 \\ + 323 \\ \hline \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 347 \\ + 390 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 472 \\ + 108 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 239 \\ + 570 \\ \hline \end{array}$$

5. Estimate: _____

$$\begin{array}{r} 110 \\ + 576 \\ \hline \end{array}$$

6. Estimate: _____

$$\begin{array}{r} 258 \\ + 324 \\ \hline \end{array}$$

7. Estimate: _____

$$\begin{array}{r} 471 \\ + 269 \\ \hline \end{array}$$

8. Estimate: _____

$$\begin{array}{r} 585 \\ + 309 \\ \hline \end{array}$$

Name _____

Back and Forth Addition

A *palindrome* reads the same forward as it does backward.

Forward Backward

mom —————> mom

deed —————> deed

A number can also be a palindrome.

Forward Backward

22 —————> 22

313 —————> 313

Try This

Start with a 3-digit number: 142

Reverse it: 241

Add the two numbers: $142 + 241 = 383$

You get a palindrome!

You may need to reverse and add more than one time.

Find a palindrome. Show your work.

1. 125

2. 207

3. 316

4. 443

5.  **Write Math** Sandy says that if you add two numbers that are palindromes, the sum will always be a palindrome. Do you agree? **Explain.**

6. **Stretch Your Thinking** Find a 3-digit number you can use to make a palindrome. Write your number. Then use it to make a palindrome.

Name _____

Estimate Differences

You can use what you know about estimating sums to estimate differences.

Estimate. Use compatible numbers.

$$78 - 47 = \blacksquare$$

Think: Compatible numbers are easy to subtract.

$$\begin{array}{r} 78 \\ - 47 \\ \hline \end{array} \quad \begin{array}{r} 75 \\ - 50 \\ \hline 25 \end{array}$$

So, $78 - 47$ is about **25**.

Another way to estimate is to round to the same place value.

Estimate. Round each number to the nearest hundred. $687 - 516 = \blacksquare$

Step 1 Look at the digit to the right of the hundreds place.

- $8 > 5$, so the digit in the hundreds place increases by 1.

- $1 < 5$, so the digit in the hundreds place stays the same.

$$\begin{array}{r} 687 \\ - 516 \\ \hline \end{array} \quad \begin{array}{r} 700 \\ - 500 \\ \hline 200 \end{array}$$

Step 2 Write zeros for the tens and ones places.

So, $687 - 516$ is about **200**.

Use rounding or compatible numbers to estimate the difference.

$$\begin{array}{r} 1. \quad 92 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 271 \\ - 152 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 517 \\ - 249 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 445 \\ - 112 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 92 \\ - 65 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 776 \\ - 384 \\ \hline \end{array}$$

Name _____

Estimating Pocket Change

Charlie has a pair of pants with six different pockets labeled A to F. Each pocket has a card for a number of coins inside. The list below shows the number hidden in each pocket.

Pocket

A = 394

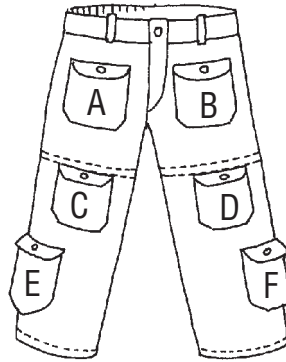
B = 147

C = 610

D = 198

E = 782

F = 336



Estimate the difference.

1. Pocket E – Pocket B = _____

2. Pocket C – Pocket F = _____

3. Pocket A – Pocket B = _____

4. Pocket A – Pocket F = _____

5. Pocket D – Pocket B = _____

6. Pocket E – Pocket D = _____

7. **Write Math** For Exercise 5, Tom estimates 100 coins and Nina estimates 50 coins. Whose estimate is closer to the exact answer? **Explain.**

8. **Stretch Your Thinking** Charlie has two back pockets with numbers for coins in each pocket. The difference between the numbers is about 150. What numbers could he have in each pocket? **Explain.**

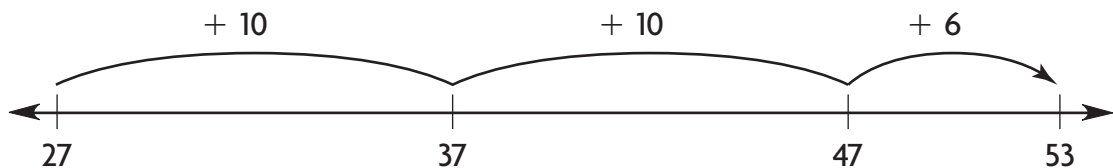
Mental Math Strategies for Subtraction

You can count up on a number line to find a difference.

Find $53 - 27$.

Step 1 Count up by tens.
Start at 27. Count up to 47.

Step 2 Count up by ones.
Start at 47. Count up to 53.



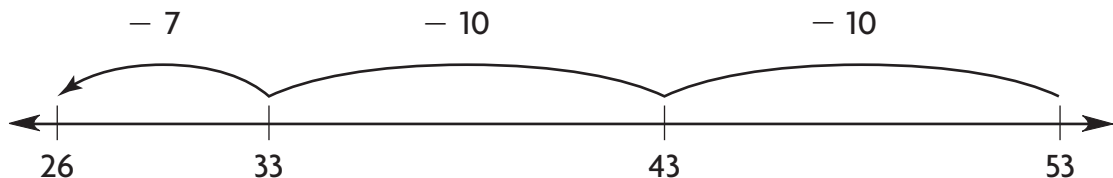
Think: $10 + 10 + 6 = 26$.

So, $53 - 27 = 26$.

You can take away tens and ones to find a difference.

Step 1 Take away tens.
Start at 53.

Step 2 Take away ones.
Start at 33.



Think: $53 - 10 - 10 - 7 = 26$.

So, $53 - 27 = 26$.

- Find $92 - 65$. Draw jumps and label the number line to show your thinking.



$92 - 65 = \underline{\hspace{2cm}}$

Name _____

Friendly Numbers Puzzle

Combine pairs of numerals in the puzzle pieces to form a friendly subtraction sentence to help you complete the table below. Use each puzzle piece only once.



	Subtraction	Puzzle Piece 1		Puzzle Piece 2	Difference
1.	43 – 19		—		
2.	72 – 39		—		
3.	64 – 28		—		
4.	46 – 9		—		
5.	433 – 99		—		

6. **Write Math** Describe the strategy you used to find the puzzle pieces to help you subtract in Exercise 3.

Name _____

Use Place Value to Subtract

You can use place value to subtract 3-digit numbers.

Subtract. $352 - 167$ **Estimate.** $400 - 200 = 200$

Step 1 Subtract the ones.

$$\begin{array}{r} 4 \text{ } 12 \\ 3\cancel{5}\cancel{2} \\ - 167 \\ \hline 5 \end{array}$$

Are there enough ones to subtract 7?

There are not enough ones.

Regroup **5** tens **2** ones as **4** tens **12** ones.

$12 \text{ ones} - 7 \text{ ones} = 5 \text{ ones}$

Step 2 Subtract the tens.

$$\begin{array}{r} 14 \\ 2\cancel{4}\cancel{12} \\ 3\cancel{5}\cancel{2} \\ - 167 \\ \hline 85 \end{array}$$

Are there enough tens to subtract 6?

There are not enough tens.

Regroup **3** hundreds **4** tens as **2** hundreds **14** tens.

$14 \text{ tens} - 6 \text{ tens} = 8 \text{ tens}$

Step 3 Subtract the hundreds.

$$\begin{array}{r} 14 \\ 2\cancel{4}\cancel{12} \\ 3\cancel{5}\cancel{2} \\ - 167 \\ \hline 185 \end{array}$$

$2 \text{ hundreds} - 1 \text{ hundred} = 1 \text{ hundred}$

So, $352 - 167 = 185$.

Estimate. Then find the difference.

1. Estimate: _____

$$\begin{array}{r} 537 \\ - 123 \\ \hline \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 268 \\ - 157 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 426 \\ - 218 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 785 \\ - 549 \\ \hline \end{array}$$

5. Estimate: _____

$$\begin{array}{r} 354 \\ - 206 \\ \hline \end{array}$$

6. Estimate: _____

$$\begin{array}{r} 679 \\ - 482 \\ \hline \end{array}$$

7. Estimate: _____

$$\begin{array}{r} 787 \\ - 378 \\ \hline \end{array}$$

8. Estimate: _____

$$\begin{array}{r} 843 \\ - 675 \\ \hline \end{array}$$

Name _____

Mystery Subtraction

Find the unknown digit.

$$\begin{array}{r} 1. \quad 426 \\ - 1\boxed{}8 \\ \hline 268 \end{array}$$

$$\begin{array}{r} 2. \quad 698 \\ - 38\boxed{} \\ \hline 309 \end{array}$$

$$\begin{array}{r} 3. \quad 710 \\ - \boxed{}05 \\ \hline 605 \end{array}$$

$$\begin{array}{r} 4. \quad 572 \\ - 397 \\ \hline \boxed{}75 \end{array}$$

$$\begin{array}{r} 5. \quad 543 \\ - 29\boxed{} \\ \hline 249 \end{array}$$

$$\begin{array}{r} 6. \quad 475 \\ - 2\boxed{}9 \\ \hline 236 \end{array}$$

$$\begin{array}{r} 7. \quad 832 \\ - 2\boxed{}8 \\ \hline 554 \end{array}$$

$$\begin{array}{r} 8. \quad 986 \\ - 67\boxed{} \\ \hline 308 \end{array}$$

9.  **Write Math** **Explain** how you found the unknown digit in Exercise 6.

10. **Stretch Your Thinking** What is the greatest 3-digit number you can subtract from 426 so that you would need to regroup? **Explain.**

Name _____

Combine Place Values to Subtract

You can combine place values to subtract. Think of two digits next to each other as one number.

Subtract. $354 - 248$

Estimate. $350 - 250 = 100$

Step 1 Look at the digits in the ones place.

Think: $8 > 4$, so combine place values.

$$\begin{array}{r} 354 \\ - 248 \\ \hline \end{array}$$

Step 2 Combine the tens and ones places.

Think: There are 54 ones and 48 ones.

Subtract the ones. Write 0 for the tens.

$$\begin{array}{r} 354 \\ - 248 \\ \hline 06 \end{array}$$

Step 3 Subtract the hundreds.

$$\begin{array}{r} 354 \\ - 248 \\ \hline 106 \end{array}$$

So, $354 - 248 = 106$.

Remember: You can also combine hundreds and tens to subtract.

Estimate. Then find the difference.

1. Estimate: _____

$$\begin{array}{r} 485 \\ - 376 \\ \hline \end{array}$$

2. Estimate: _____

$$\begin{array}{r} 657 \\ - 424 \\ \hline \end{array}$$

3. Estimate: _____

$$\begin{array}{r} 347 \\ - 198 \\ \hline \end{array}$$

4. Estimate: _____

$$\begin{array}{r} 623 \\ - 397 \\ \hline \end{array}$$

5. Estimate: _____

$$\begin{array}{r} 443 \\ - 207 \\ \hline \end{array}$$

6. Estimate: _____

$$\begin{array}{r} 500 \\ - 338 \\ \hline \end{array}$$

7. Estimate: _____

$$\begin{array}{r} 835 \\ - 548 \\ \hline \end{array}$$

8. Estimate: _____

$$\begin{array}{r} 712 \\ - 289 \\ \hline \end{array}$$

Name _____

Recycling Problems

Solve the problem. Estimate first. Then write and solve a similar problem using different numbers.

1. Tim and Alex collected aluminum cans for recycling. Tim collected a total of 942 cans. Alex collected 327 cans. How many fewer cans did Alex collect than Tim?

Estimate: _____

Answer: _____ cans

2. Stewart collected 842 used tires to recycle. Angel collected 529 used tires. How many fewer tires did Angel collect than Stewart?

Estimate: _____

Answer: _____ tires

3. Yesterday, a recycling center collected 679 cans. The center collected 225 fewer bottles than cans, and 178 fewer newspaper bundles than bottles. How many newspaper bundles did the center collect yesterday?

Name _____

Problem Solving • Model Addition and Subtraction

Kim sold 127 tickets to the school play. Jon sold 89 tickets.
How many more tickets did Kim sell than Jon?

Read the Problem	Solve the Problem
What do I need to find? I need to find <u>how many more</u> <u>tickets Kim sold than Jon</u> _____.	Complete the bar model. Kim 127 tickets Jon 89 tickets tickets Subtract to find the unknown part. <u>127</u> - <u>89</u> = <u>38</u> = 38 tickets So, Kim sold <u>38</u> more tickets than Jon.
What information do I need to use? I know that Kim sold <u>127</u> tickets and Jon sold <u>89</u> tickets.	
How will I use the information? I will draw a bar model to help me see what operation to use to solve the problem.	

1. Kasha collected 76 fall leaves. She collects 58 more leaves. How many leaves does she have now?

2. Max has 96 stamps. Pat has 79 stamps. How many more stamps does Max have than Pat?

Name _____

Get the Picture?

The students at Audubon School voted for their favorite color. The color green had 164 votes. The color blue had 293 votes. The color red had 129 votes.

Draw a line to match the problem with the bar model that can be used to solve it. Then solve.

Problem

1. How many more students voted for blue than green?

2. How many more students need to vote for red for it to have the same number of votes as blue?

3. **What if** 129 more students voted for green? How many votes would green have now?

4. **What if** 129 more students voted for blue? How many votes would blue have now?

Bar Model

