## Draw to Represent 3-Digit Addition

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

Count the hundreds, tens, and ones.
$\qquad$ hundreds
 tens $\qquad$ ones

| Hundreds | Tens | Ones |
| :--- | :---: | :---: |
| $\ldots$ |  | $\vdots$ |
|  |  |  | Write the number.

Draw quick pictures. Write how many hundreds, tens, and ones in all. Write the number.
I. Add 135 and 214 .

$\qquad$ hundreds $\qquad$ tens $\qquad$ ones
2. Add 12 I and 143 .

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

$\qquad$ hundreds $\qquad$ tens $\qquad$ ones

## Addition Triplets

One addend is in standard form, but the other is missing! Draw a quick picture to find the unknown addend.

| I. | 2. |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

[^0]
## Break Apart 3-Digit Addends

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

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

$$
\begin{aligned}
& 743=700+40 \\
& 124=100+20+\frac{3}{4}
\end{aligned}
$$

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

$$
\underline{\text { Hundreds }} \begin{array}{r}
\text { Tens } \\
743 \\
+124
\end{array} \frac{\begin{array}{l}
700 \\
100
\end{array}+\frac{\text { Ones }}{40}+\frac{3}{20}}{\frac{800}{4}+\underline{60}+\underline{7}}=867
$$

Break apart the addends to find the sum.


## Domino Break

Each set of dominoes shows a 3-digit addend on top and another on the bottom. Break apart the addends to find the sum.


## Writing and Reasoning Draw your own set of dominoes

 to show 3-digit addition. Give it to a classmate to solve.
## 3-Digit Addition: <br> Regroup Ones

| Add. 318 | Hundreds | Tens | Ones |  | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | + | $\begin{aligned} & 3 \\ & 2 \end{aligned}$ | 1 5 | 8 |
|  | 张聿 |  |  |  |  |  |  |

Add the ones.

$$
8+6=
$$

Do you need to regroup?

Regroup IO ones as I ten.


Add the tens.

$$
1+1+5=
$$

Add the hundreds.

$$
3+2=5
$$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  |  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ |
|  |  | $\square$ |


| Hundreds | Tens | Ones |
| ---: | :---: | :---: |
|  | 1 |  |
| + | 3 | 1 |
| + | 2 | 5 |
|  |  | 6 |

## Write the sum.


2.


## 3-Digit Scramble

Use each digit once to make two addends for a problem in which you regroup ones. Solve.
I. $6,5,3,1,2,4$

3. $2, I, 3,7,2,4$

2. $4,4,1,3,3,9$

4. $4,3,2,2, I, 6$


Writing and Reasoning How did you make sure you would need to regroup ones?

## 3－Digit Addition：Regroup Tens

Add． 271

| +158 |
| :--- |

Add the ones．
$1+8=$


Add the tens．
$7+5=$
Do you need to

Regroup 12 tens as I hundred 2 tens．


Add the hundreds．
$1+2+1=\underline{\square}$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
| ， |  |  |
| 服 |  |  |
| 场 |  | $\square$ |
| 訨 |  |  |
| － |  |  |
| 首 |  |  |
| － |  |  |
| ， |  | ©0 |
| \＃ |  | 昌甼 |



## Write the sum．


2.


## Triple Digits

Use the numbers on the shirts to make an addition problem in which you regroup tens. Write the sum.


Writing and Reasoning Write your own 3-digit addition problem in which you regroup tens. Give it to a classmate to solve.

## Addition: Regroup <br> Ones and Tens

Sometimes, you may need to regroup more than once.

189
$+623$

Step I Add the ones.
There are 12 ones in all.
Regroup I2 ones as I ten 2 ones.


Step 2 Add the tens.
There are II tens in all.
Regroup II tens as I hundred I ten.


Step 3 Add the hundreds.
There are 8 hundreds in all.

| 1 | 1 |  |
| ---: | ---: | :--- |
| 1 | 8 | 9 |
| +6 | 2 | 3 |
| 8 | 1 | 2 |

## Write the sum.

I.

2.

3.


## Paint by Regrouping

Find each sum. Color the problem blue if you regrouped twice. Color the problem green if you regrouped once. Color the problem yellow if you did not regroup.

| I. $\begin{array}{r} 127 \\ +\quad 293 \\ \hline \end{array}$ | 2. $\begin{array}{r} 785 \\ +\quad 152 \\ \hline \end{array}$ | 3. $\begin{array}{r} 825 \\ +\quad 123 \\ \hline \end{array}$ |
| :---: | :---: | :---: |
| 4. $\begin{array}{r} 378 \\ +\quad 204 \\ \hline \end{array}$ | 5. $\begin{array}{r} 561 \\ +\quad 327 \\ \hline \end{array}$ | 6. $\begin{array}{r} 486 \\ +\quad 335 \\ \hline \end{array}$ |
| 7. $\begin{array}{r} 237 \\ +\quad 522 \\ \hline \end{array}$ | 8. $\begin{array}{r} 287 \\ +\quad 536 \\ \hline \end{array}$ | 9. $\begin{array}{r} 709 \\ +\quad 216 \\ \hline \end{array}$ |

Writing and Reasoning Why do you sometimes need to regroup in 3-digit addition problems?

## Problem Solving•3-Digit <br> Subtraction

There were 237 books on the shelves.
Mr. Davies took I 26 books off the shelves.
How many books were still on the shelves?

## Unlock the Problem

| What do I need to find? | What information do <br> I need to use? |
| :--- | :--- |
| were still on the shelves | There were <br> the shelves. <br> Mr. Davies took <br> off the shelves. |
| Show how to solve the problem. |  |
| There were books on |  |

Make a model to solve. Then draw a quick picture of your model.
I. Mr. Cho has 256 pencils.

Then he sells 132 pencils.
How many pencils does
he have now?
$\qquad$ pencils

## What Is the Difference?

Use the information on the farmer's list to write and solve the subtraction problem.


Writing and Reasoning Use the list to write your own subtraction problem. Have a classmate solve it.

## 3-Digit Subtraction: Regroup Tens

Subtract. 463
$-317$

Are there enough ones
to subtract 7? :"\%
Regroup I ten as 10 ones.


Subtract the tens.
$5-1=\underline{\text { in }}$
Subtract the hundreds.
$4-3=$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
| (1) |  | $\begin{aligned} & \theta \\ & \theta \\ & \theta \\ & \theta \\ & \theta \end{aligned}$ |
|  |  |  |
| 鄙 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| \| |  |  |



## Solve. Write the difference.

I.

2.


## Subtraction Steps

Solve each subtraction problem.


3-digit subtraction problem that has no regrouping.
$\qquad$
$\qquad$

## 3-Digit Subtraction: Regroup Hundreds

Subtract. 326
$-174$

Subtract the ones.
$6-4=2$
Are there
enough tens to
subtract 7 tens? $\qquad$


Regroup I hundred as 10 tens.
Now there are 2 tens
and
Subtract the tens.
$12-7=$
Subtract the hundreds.




## Solve. Write the difference.

1. 


2.


## Check It Out

Solve the subtraction problem. Then complete the addition problem to check your work.


Writing and Reasoning Why can you use addition to check your subtraction?

## Subtraction: Regroup Hundreds and Tens



Regroup I ten as 10 ones. Subtract the ones.

| 712 |
| ---: |
| 28,2 |
| -198 |
| 4 |

Regroup I hundred as 10 tens. Subtract the tens.

Subtract the hundreds.


Solve. Write the difference.

| 1. $\begin{array}{r}481 \\ -176 \\ \hline\end{array}$ | 2. $\begin{array}{r}746 \\ -\quad 28 \\ \hline\end{array}$ | 3. $\begin{array}{r} 331 \\ -\quad 48 \\ \hline \end{array}$ |
| :---: | :---: | :---: |
| 4. $\begin{array}{r}395 \\ -131\end{array}$ | 5. $\begin{array}{r}524 \\ -265 \\ \hline\end{array}$ | 6. $\begin{array}{r}748 \\ -603 \\ \hline\end{array}$ |

## Subtraction Squares

Start at the top right circle. Subtract to find the missing number in each circle.
I.

2.


Writing and Reasoning How is regrouping in subtraction different from regrouping in addition?

## Regrouping with Zeros

## Subtract I 38 from 305.

There are not enough ones to subtract 8 .

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

$\qquad$
Then regroup 10 tens 5 ones as 9 tens 15 ones.

Subtract the ones.

$$
15-8=7
$$



Subtract the tens.

$$
9-3=6
$$

Subtract the hundreds.

$$
2-1=1
$$



| Tens | Ones |
| :---: | :---: |
|  | $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |


so, $305-138=\underline{67}$.

Solve. Write the difference.
1.

2.

3.

$$
\begin{array}{r}
907 \\
-624 \\
\hline
\end{array}
$$

## Mystery Number

Subtract to find each difference.
Color the box for each difference with a 3 in the hundreds place to discover the mystery number.

| $\begin{array}{r}407 \\ -259 \\ \hline\end{array}$ | $\begin{array}{r}901 \\ -539 \\ \hline\end{array}$ | $\begin{array}{r}702 \\ -355 \\ \hline\end{array}$ | $\begin{array}{r}704 \\ -352 \\ \hline\end{array}$ |
| :---: | :---: | :---: | :---: |
| $\begin{array}{r}809 \\ -379 \\ \hline\end{array}$ | $\begin{array}{r}609 \\ -269 \\ \hline\end{array}$ | $\begin{array}{r}303 \\ -111 \\ \hline\end{array}$ | $\begin{array}{r}508 \\ -119 \\ \hline\end{array}$ |
| $\begin{array}{r}402 \\ -174 \\ \hline\end{array}$ | $\begin{array}{r}508 \\ -183 \\ \hline\end{array}$ | $\begin{array}{r}808 \\ -437 \\ \hline\end{array}$ | $\begin{array}{r}902 \\ -538 \\ \hline\end{array}$ |

Writing and Reasoning What is the mystery number? $\qquad$
When do you need to regroup hundreds in a subtraction problem?


[^0]:    Writing and Reasoning How did you decide what to draw for Exercise 3? Explain.

