9 Add Numbers within 1,000

- **What is a robot? What are some things that robots can do?**

- **You use 220 parts to make one robot and 157 parts to make another. How many parts do you use in all?**

Chapter Learning Target:
Understand adding numbers.

Chapter Success Criteria:
- ☐ I can identify 10 and 100.
- ☐ I can count on from a number in different ways.
- ☐ I can explain how to use different counting strategies.
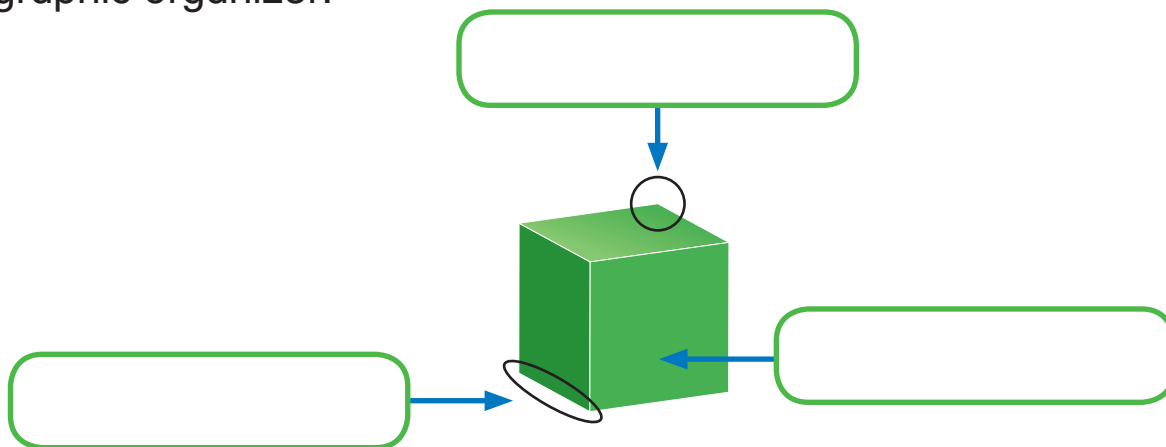- ☐ I can represent numbers in different ways.

© Big Ideas Learning, LLC

9 Vocabulary

Organize It

Use the review words to complete the graphic organizer.

Define It

What am I?

```
    4   2
    2  ③
    3   5   ⟩ 10
  + 2  ⑦
```

```
    3   7
    2  ④
    3   1   ⟩ 8
  + 2  ④
```
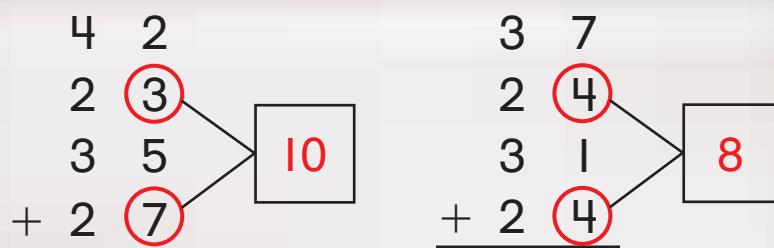
numbers that help you add mentally

$5 - 2 = O$	$9 - 8 = I$	$12 - 4 = L$	$14 - 2 = A$
$18 - 3 = B$	$10 - 3 = C$	$13 - 3 = P$	$16 - 7 = E$
$20 - 4 = M$	$17 - 6 = T$		

7	3	16	10	12	11	1	15	8	9

numbers

compatible numbers

$$
\begin{array}{cc}
4 & 2 \\
2 & ③ \\
3 & 5 \\
+\ 2 & ⑦
\end{array}
\longrightarrow \boxed{10}
\qquad
\begin{array}{cc}
3 & 7 \\
2 & ④ \\
3 & 1 \\
+\ 2 & ④
\end{array}
\longrightarrow \boxed{8}
$$

numbers that help you add mentally
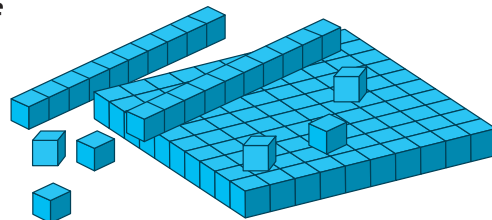
Learning Target: Use mental math to add 10 and add 100.

Explore and Grow

Model 231. Make a quick sketch of your model.

231
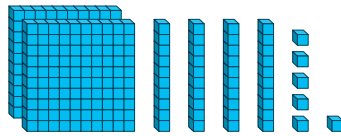
Model 10 more than 231. Make a quick sketch of your model.

231 + 10 = _____

Model 100 more than 231. Make a quick sketch of your model.
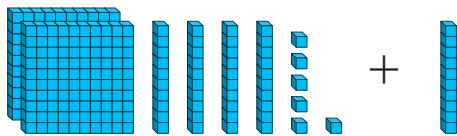
231 + 100 = _____

© Big Ideas Learning, LLC
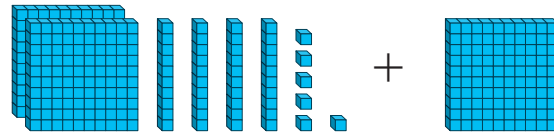
246

$$4 + 1 = 5$$

$$246 + 10 = \underline{256}$$

The digit in the tens place increases by 1.

$$2 + 1 = 3$$

$$246 + 100 = \underline{346}$$

The digit in the hundreds place increases by 1.

Sometimes when you add 10, the digits in the tens place *and* the hundreds place change.

$$390 + 10 = ?$$

$$39 \text{ tens} + 1 \text{ ten} = 40 \text{ tens}$$

So, $390 + 10 = 400$.
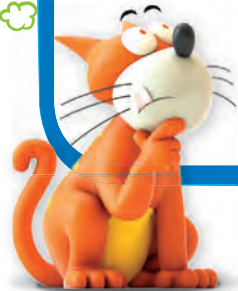
Show and Grow — I can do it!

1. $317 + 10 =$ _____

   $317 + 100 =$ _____

2. $168 + 10 =$ _____

   $168 + 100 =$ _____

3. $223 + 10 =$ _____

   $223 + 100 =$ _____

4. $490 + 10 =$ _____

   $490 + 100 =$ _____

✓ Apply and Grow: Practice

5. $731 + 10 = $ _____

6. $674 + 100 = $ _____

7. $620 + 10 = $ _____

8. $713 + 10 = $ _____

9. $564 + 100 = $ _____

10. $349 + 10 = $ _____

11. $456 + 100 = $ _____

12. $802 + 100 = $ _____

13. $192 + 10 = $ _____

14. $900 + 100 = $ _____

15. $349 + $ _____ $ = 449$

16. _____ $ + 10 = 791$

17. 🅜🅟 **Number Sense** Use each number once to complete the equations.

| 312 | 412 | 100 | 322 |

_____ $ + 10 = $ _____

_____ $ + $ _____ $ = 512$

You and a friend play skee ball. Your score is 290. Your friend's score is 220. On the last roll, you score 10 more and your friend scores 100 more. Who wins?

Addition equations:

Find a Rule
Which digit increases when adding 10? when adding 100?

Compare: _____ ◯ _____

You   Friend

Show and Grow   I can think deeper!

18. You and a friend play a card game. Your score is 420. Your friend's score is 530. In the last round, you score 100 more and your friend scores 10 more. Who wins?

You   Friend

19. You spin the wheel and score 100 points. Your friend scores 335. On the last spin, you score 275 more and your friend scores 10 more. Who wins?

You   Friend

Learning Target: Use mental math to add 10 and add 100.

262

$262 + 10 = \underline{272}$

$262 + 100 = \underline{362}$
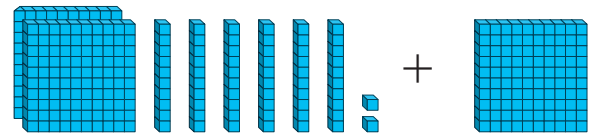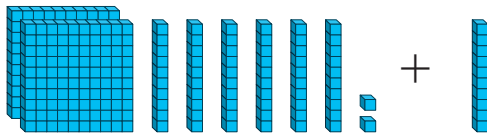
1. $850 + 100 = \underline{\hspace{1cm}}$

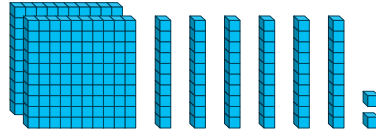2. $625 + 10 = \underline{\hspace{1cm}}$

3. $704 + 10 = \underline{\hspace{1cm}}$

4. $294 + 100 = \underline{\hspace{1cm}}$

5. $556 + 100 = \underline{\hspace{1cm}}$

6. $471 + 100 = \underline{\hspace{1cm}}$

7. $308 + 100 = \underline{\hspace{1cm}}$

8. $149 + 10 = \underline{\hspace{1cm}}$

9. $690 + 10 = \underline{\hspace{1cm}}$

10. $990 + 10 = \underline{\hspace{1cm}}$

11. $621 + \underline{\hspace{1cm}} = 631$

12. $\underline{\hspace{1cm}} + 100 = 613$

13. 🍎 **YOU BE THE TEACHER** Your friend says that
847 + 110 = 957. Is your friend correct? Explain.

_____

_____

14. **Modeling Real Life** You pick 220 blueberries.
Your friend picks 200. You pick 10 more and your
friend picks 100 more. Who picks more blueberries?
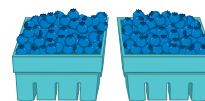
You   Friend

15. **Modeling Real Life** You download 100 songs. Your
friend downloads 125. Then you download 145 more
and your friend downloads 10 more. Who downloads
more songs?

You   Friend

Review & Refresh

16.
```
   5  6
 −    8
_____
```

17.
```
   7  3
 −    5
_____
```

18.
```
   4  1
 − 2  6
_____
```

Learning Target: Use an open number line to add hundreds and tens.

Explore and Grow

Show how to skip count by tens five times on the number line.

←————•————————————————————————————→
    154

$$154 + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

Show how to skip count by hundreds five times on the number line.

←————•————————————————————————————→
    154

$$154 + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$
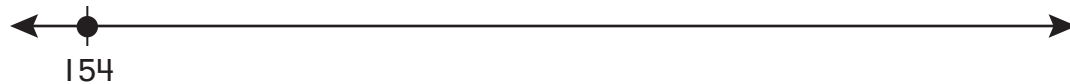
$597 + 320 = ?$

Start at 597. Count on by hundreds, then by tens.

One Way:

+100 +100 +100 +10 +10

597   697   797   897 907 917
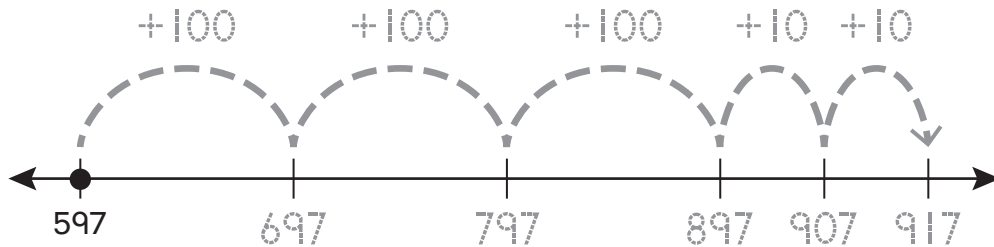
Make greater jumps. The sum is the same!

Another Way:

+300   +20

597   897   917
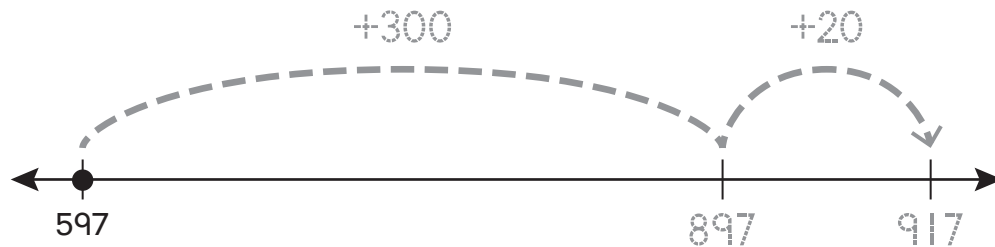
$597 + 320 = \underline{917}$

Show and Grow   I can do it!

1. $380 + 340 = \underline{\hspace{1cm}}$

380

2. $462 + 270 = \underline{\hspace{1cm}}$
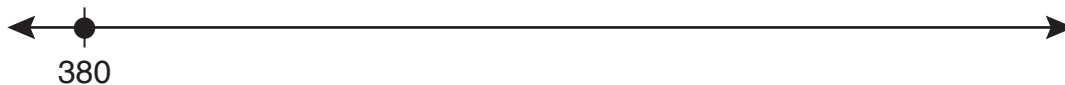
✓ Apply and Grow: Practice

3. $550 + 210 =$ _____

4. $725 + 160 =$ _____

5. $469 + 350 =$ _____

6. **MP** **Reasoning** Complete the number line and the equation.

+ 100   + 100   + ☐

720   ☐   ☐   960

_____ + _____ = _____
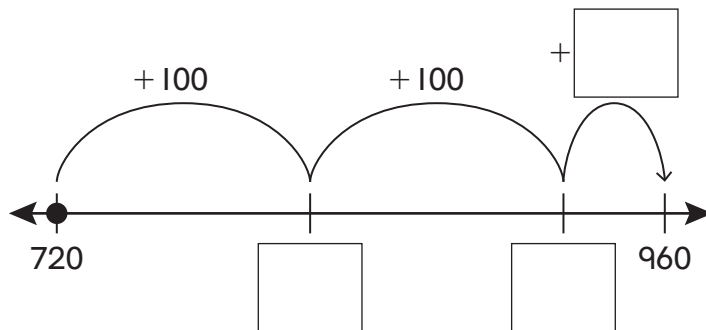
A post office has 330 large envelopes and some small envelopes. There are 560 envelopes in all. How many small envelopes are there?
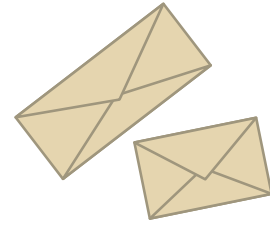
Addition equation:

Model:

⟵───────────────────────⟶

_____ small envelopes

Show and Grow   I can think deeper!

7. A postal carrier delivers 280 letters and some postcards. She delivers 390 pieces of mail in all. How many postcards does she deliver?
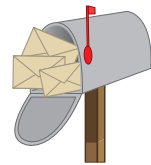
_____ postcards

8. There are some children and 180 adults on a subway. There are 300 passengers in all. How many children are there?
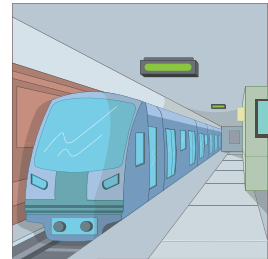
_____ children

Learning Target: Use an open number line to add hundreds and tens.

$$642 + 230 = \underline{872}$$
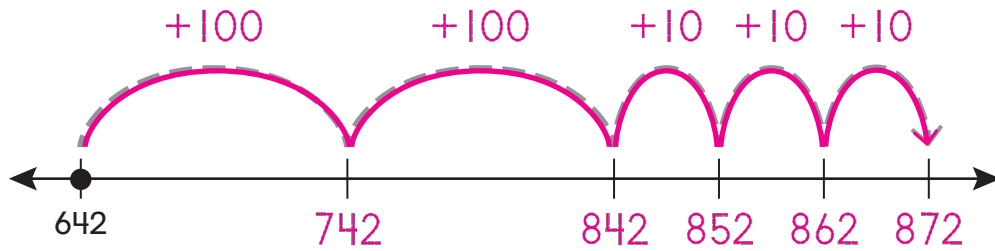
+100   +100   +10 +10 +10
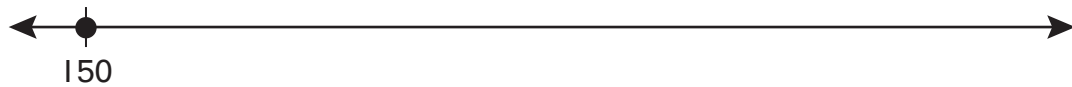
642   742   842 852 862 872

1. $150 + 610 =$ _____

150

2. $291 + 450 =$ _____

3. $553 + 250 =$ _____

4. **MP** **Structure** Write the equation shown by the number line.

$$+100 \quad +100 \quad +100 \quad +10 \quad +10$$

430   530   630   730 740 750

_____ + _____ = _____

---
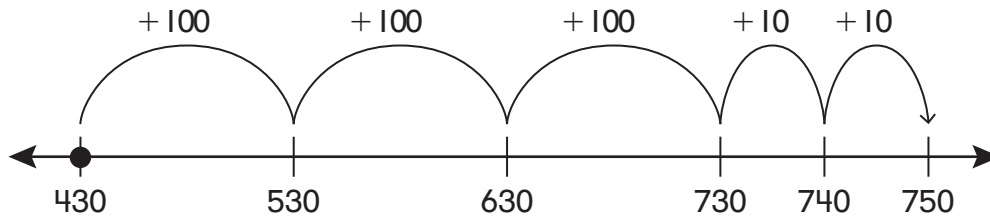
5. **MP** **Modeling Real Life** A carpenter has 320 nails and some screws. There are 470 nails and screws in all. How many screws are there?

_____ screws

---

6. **DIG DEEPER!** In Exercise 5, the carpenter buys more nails and screws. Now there are 670 nails and screws in all. Is it possible that the carpenter bought the same number of nails and screws?

_____

_____

Review & Refresh

7. Show 416 two ways.

Hundreds	Tens	Ones		Hundreds	Tens	Ones
_____	_____	_____		_____	_____	_____

Learning Target: Use an open number line to add.

Explore and Grow

Use each sum as the missing addend in the next equation.

$$425 + 200 = \rule{2cm}{0.4pt}$$

$$\rule{2cm}{0.4pt} + 20 = \rule{2cm}{0.4pt}$$

$$\rule{2cm}{0.4pt} + 2 = \rule{2cm}{0.4pt}$$
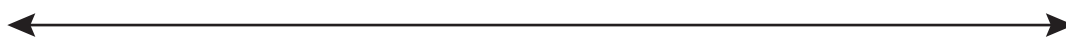
Use a Similar Problem How does this help you find 425 + 222?

_____

_____

Start at 483. Count on by hundreds, then by tens, then by ones.

$$483 + 224 = ?$$

One Way:

+100   +100   +10   +10   +1   +1   +1   +1

483   583   683   693   703 704 705 706 707

Make greater jumps.

Another Way:

+200   +20   +4

483   683   703   707
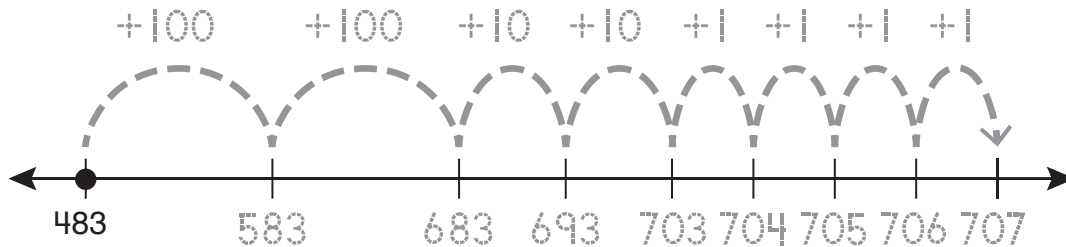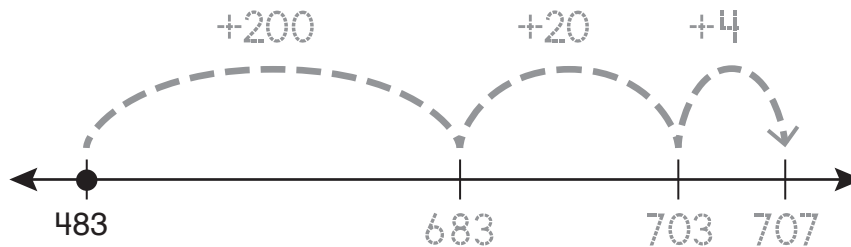
$$483 + 224 = \underline{707}$$

Show and Grow   I can do it!

1. $371 + 145 = \underline{\hspace{1cm}}$

371

2. $419 + 237 = \underline{\hspace{1cm}}$
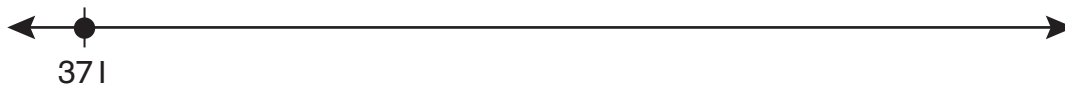
✔ Apply and Grow: Practice

3. $524 + 312 = $ _____

_____

4. $645 + 108 = $ _____

_____

5. $836 + 74 = $ _____

---
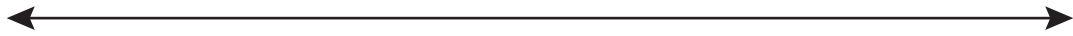
6. **MP Structure** Write the equation shown by the number line.

+200   +50   +2

326   526   576 578

_____ + _____ = _____
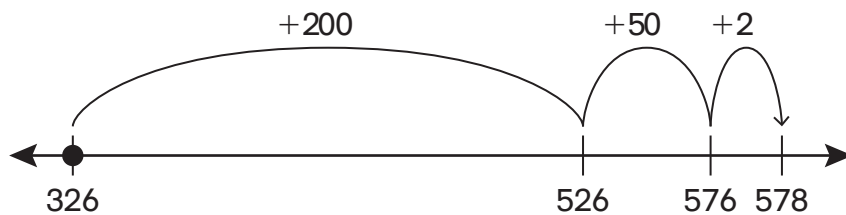
There are 289 boys and 323 girls running in a race. How many runners are there in all?

Addition equation:

Model:

⟵————————————————————⟶

_____ runners

Show and Grow   I can think deeper!

7. A textbook has 478 pages in Volume 1 and 443 pages in Volume 2. How many pages are there in all?
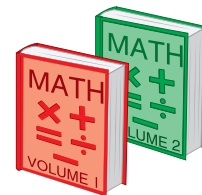
_____ pages

8. **DIG DEEPER!** The pictures show your fitness tracker before and after you take a walk. How many steps did you take on your walk?

Before

🚶 132

After

🚶 895

_____ steps

Learning Target: Use an open number line to add.

$$345 + 143 = \underline{488}$$

+100 +10 +10 +10 +10 +1 +1 +1

345   445 455 465 475 485 486 487 488

1. $291 + 407 = \underline{\qquad}$

291
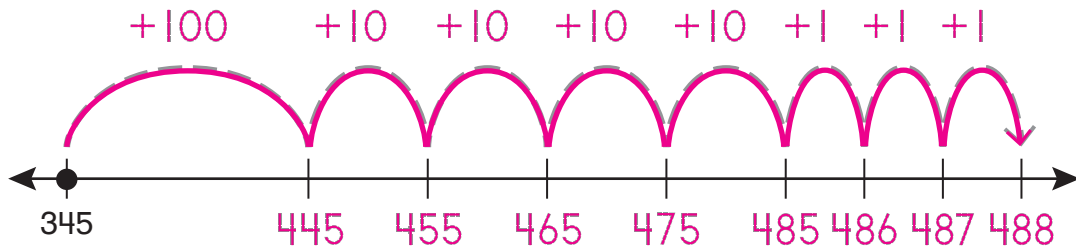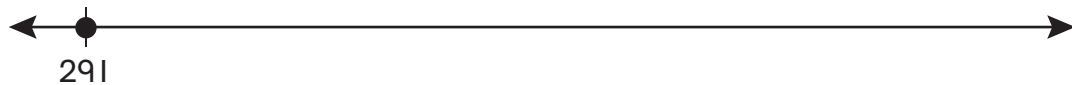
2. $752 + 138 = \underline{\qquad}$

3. $372 + 319 = \underline{\qquad}$

4. **MP** **Structure** Use the number lines to show 257 + 321 two ways.
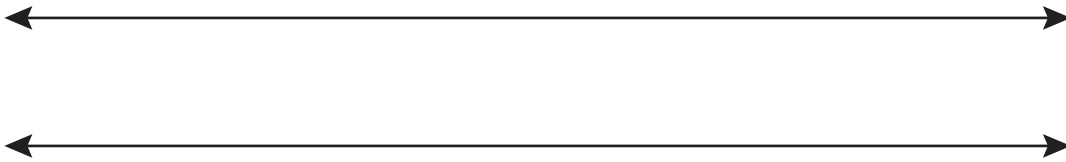
$$257 + 321 = \underline{\hspace{1cm}}$$

---

5. **MP** **Modeling Real Life** A florist has 416 daisies and 152 roses. How many flowers are there in all?

_____ flowers

---

6. **DIG DEEPER!** A school has 872 students. 139 students are in the second grade. How many students are *not* in second grade?

_____ students

Name _____

Use
Compensation to
Add Three-Digit
Numbers

9.4
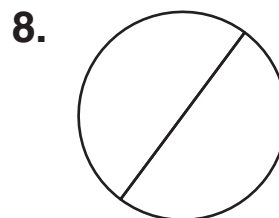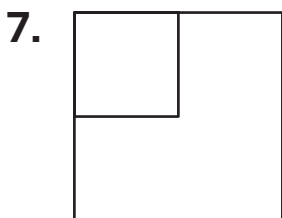
Learning Target: Use compensation to add.

Explore and Grow

Add to the model to make 300. Make a quick sketch of your work.
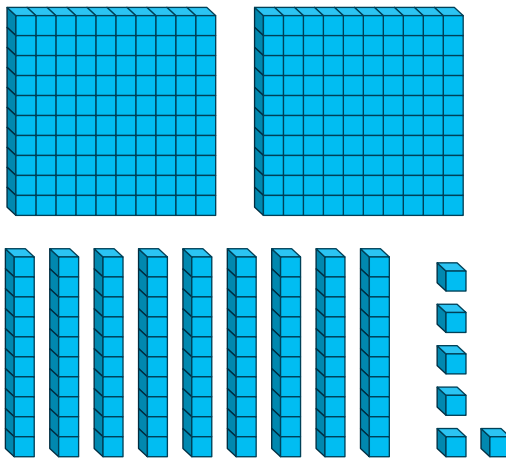
What number did you add to make 300? _____
How can this help you find 296 + 124?

_____

_____

_____

Take ones from one addend to make the other addend a hundred.
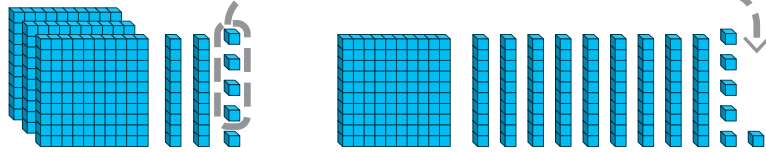
$$325 + 196 = ?$$

$\ominus \underline{\quad}4 \qquad \oplus \underline{\quad}4$

$$\underline{321} + \underline{200} = \underline{521}$$
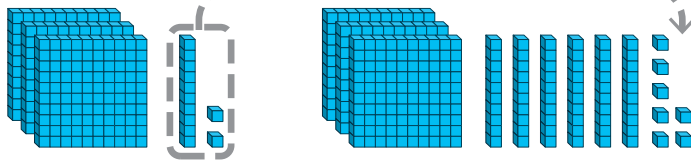
$$312 + 367 = ?$$

$\ominus \underline{\quad}12 \qquad \oplus \underline{\quad}12$

$$\underline{300} + \underline{379} = \underline{679}$$

Take tens and ones from one addend to make it a hundred.

Show and Grow   I can do it!

1. Use compensation to add.
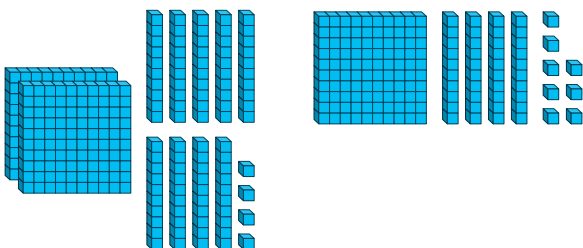
$$294 + 148 = ?$$

$\oplus \underline{\quad\quad} \qquad \ominus \underline{\quad\quad}$

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

✓ Apply and Grow: Practice

Use compensation to add.

2.

$$628 + 206 = ?$$

◯ ___   ◯ ___

___ + ___ = ___

3.
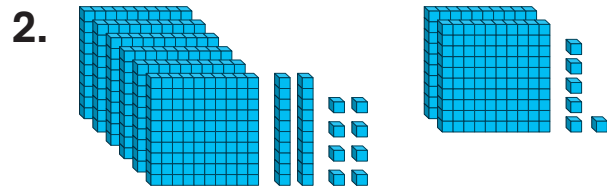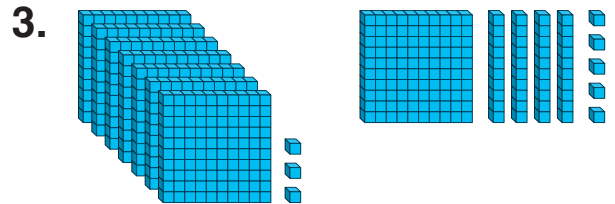
$$703 + 145 = ?$$

◯ ___   ◯ ___

___ + ___ = ___

4. $$490 + 367 = ?$$

◯ ___   ◯ ___

___ + ___ = ___

5. $$172 + 520 = ?$$

◯ ___   ◯ ___

___ + ___ = ___

6. $614 + 275 =$ _____

7. $308 + 549 =$ _____

8. **Reasoning** Show two different ways to use compensation to find $406 + 113$.

$$406 + 113 = ?$$

◯ ___   ◯ ___

___ + ___ = ___

$$406 + 113 = ?$$

◯ ___   ◯ ___

___ + ___ = ___

You want to raise $500 in 2 days. Do you reach your goal?

Day	Amount Raised
1	$283
2	$205

Addition equation:

Compare: _____ ◯ _____

Yes   No

Show and Grow   *I can think deeper!*

9. A museum wants a weekend total of 700 guests. Does the museum reach the goal?

Day	Number of Guests
Saturday	338
Sunday	389

Yes   No

10. **DIG DEEPER!** You want to score 400 in 3 bowling games. What score do you need in the third game to reach your goal?

Game	Score
1	107
2	144

_____

Learning Target: Use compensation to add.
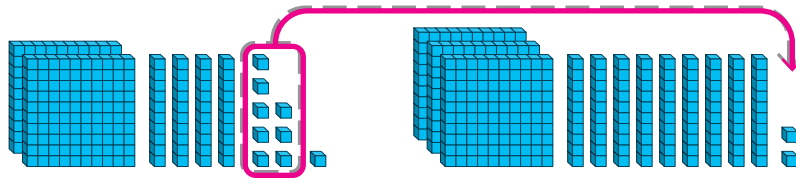
$$249 + 392 = ?$$

$$\ominus \underline{8} \quad \oplus \underline{8}$$

$$\underline{241} + \underline{400} = \underline{641}$$

Use compensation to add.

1.
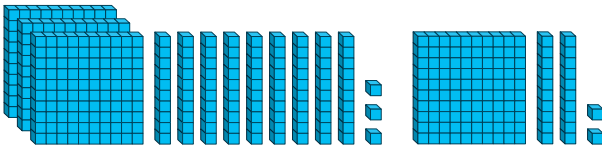
$$393 + 122 = ?$$

$$\bigcirc \underline{} \qquad \bigcirc \underline{}$$

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

2.
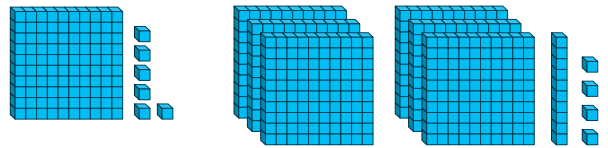
$$106 + 614 = ?$$

$$\bigcirc \underline{} \qquad \bigcirc \underline{}$$

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

3. $\quad 237 + 315 = ?$

$$\bigcirc \underline{} \qquad \bigcirc \underline{}$$

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

4. $\quad 285 + 320 = ?$

$$\bigcirc \underline{} \qquad \bigcirc \underline{}$$

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

5. 🍎 **YOU BE THE TEACHER** Your friend uses compensation to find 550 + 298. Is your friend correct? Explain.

$$550 + \quad 298 = ?$$

$\oplus \underline{\quad 2} \quad \oplus \underline{\quad 2}$

$$552 + \quad 300 = 852$$

_____

_____

_____

---

6. **Modeling Real Life** Newton wants to read 571 pages in two weeks. He reads 321 pages in the first week and 196 pages in the second week. Does he reach his goal?

Yes   No

---

7. **DIG DEEPER!** You need 850 points to get to level 4 in a video game. How many points do you need in level 3 to reach your goal?

Level	Points
1	348
2	297

_____ points

8.
$$\begin{array}{r} 9\ 5 \\ -\ 3\ 8 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 8\ 2 \\ -\ 4\ 0 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 5\ 9 \\ -\ 2\ 1 \\ \hline \end{array}$$

Learning Target: Use partial sums to add.

Explore and Grow

Model each number. Make quick sketches of your models. Then solve.
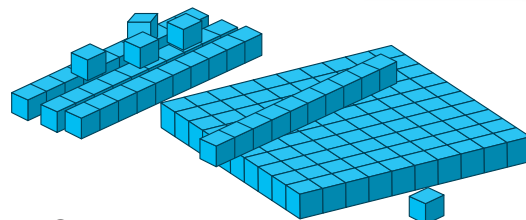
$$324 + 215 = ?$$

	Hundreds	Tens	Ones
324			
215			

_____ + _____ + _____

$$324 + 215 = \text{\_\_\_\_}$$

Think and Grow

First, find the partial sums.

Then add the partial sums to find the whole sum.

	Hundreds	Tens	Ones	
	4	2	5	
+	2	6	8	
Hundreds:	6	0	0	= 400 + 200
Tens:		8	0	= 20 + 60
Ones:		1	3	= 5 + 8
Sum	6	9	3	

Show and Grow   I can do it!

1.

	Hundreds	Tens	Ones
	2	3	6
+	3	5	9
Hundreds:			
Tens:			
Ones:			
Sum			

2.

	Hundreds	Tens	Ones
	5	8	2
+	1	7	3
Hundreds:			
Tens:			
Ones:			
Sum			

3.
```
   3 6 4
 + 4 3 2
```

4.
```
   4 5 4
 + 4 8 8
```

5.
```
   1 4 5
 + 3 4 1
```

6.
```
   5 7 6
 + 2 4 8
```

✓ Apply and Grow: Practice

7.
```
   2 1 7
 + 4 3 5
```

8.
```
   5 3 2
 + 1 2 9
```

9.
```
   6 5 1
 + 2 3 7
```

10.
```
   7 7 9
 + 1 3 0
```

11.
```
   3 6 2
 + 2 1 7
```

12.
```
   8 0 6
 + 1 1 5
```

13.
```
   4 4 8
 + 3 1 2
```

14.
```
   5 8 1
 + 2 4 3
```

15. Which One Doesn't Belong? Which expression does *not* belong with the other three?

$$200 + 300 + 50 + 20 + 5 + 6$$

$$581$$

$$500 + 70 + 11$$

$$500 + 80 + 5 + 6$$

Use Math Tools
How can you use base ten blocks to help?

A video rental store has 348 fewer video games than movies. There are 116 video games. How many movies are there?

Model:

	Hundreds	Tens	Ones
+			
Hundreds:			
Tens:			
Ones:			
Sum			

_____ movies

Show and Grow *I can think deeper!*

16. A library has 477 fewer magazines than books. There are 243 magazines. How many books are there?

_____ books

17. **DIG DEEPER!** A clothing store has some shirts on hangers. There are 214 shirts on shelves. The store has 356 shirts in all. How many shirts are on hangers?

_____ shirts

Learning Target: Use partial sums to add.

	Hundreds	Tens	Ones	
	3	6	2	
+	4	5	3	
Hundreds:	7	0	0	= 300 + 400
Tens:	1	1	0	= 60 + 50
Ones:			5	= 2 + 3
Sum	8	1	5	

1.

	Hundreds	Tens	Ones
	4	4	2
+	2	1	5
Hundreds:			
Tens:			
Ones:			
Sum			

2.

	Hundreds	Tens	Ones
	3	3	6
+	4	6	5
Hundreds:			
Tens:			
Ones:			
Sum			

3.

```
  4 5 1
+ 4 0 1
```

4.

```
  3 7 1
+ 2 4 8
```

5.

```
  6 7 2
+ 2 8 3
```

6.

```
  5 2 7
+ 1 0 6
```

7. DIG DEEPER! Find the missing digits. Then find the sum.

	Hundreds	Tens	Ones	
	_____	4	5	
+	3	_____	3	
Hundreds:	7	0	0	= 400 + 300
Tens:	1	1	0	= _____ + 70
Ones:			8	= 5 + 3
Sum				

---

8. 🔵 **Modeling Real Life** There are 180 fewer muffins than rolls. There are 425 muffins. How many rolls are there?

_____ rolls

---

9. DIG DEEPER! A truck driver drives 672 miles on Monday. He drives some more miles on Tuesday. He drives 954 miles in all. How many miles did he drive on Tuesday?

_____ miles

Review & Refresh

10. Circle the closed shapes with only 3 vertices.

Name _____
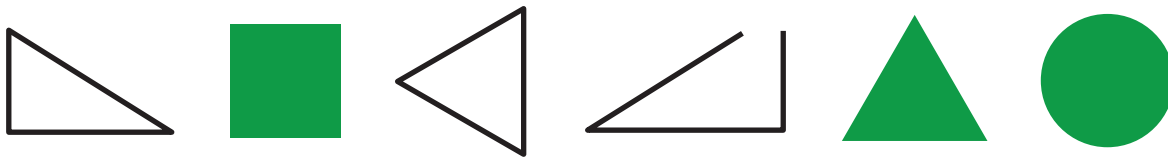
Learning Target: Use models to add.

👓 **Explore and Grow**

Model to solve. Make a quick sketch of your model.
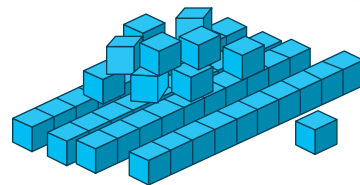
$$
\begin{array}{r}
3\ 2\ 7 \\
+\ 4\ 5\ 8 \\
\hline
\end{array}
$$

Precision
Do you need to regroup? How do you know?

$$272 + 154 = ?$$

Hundreds	Tens	Ones
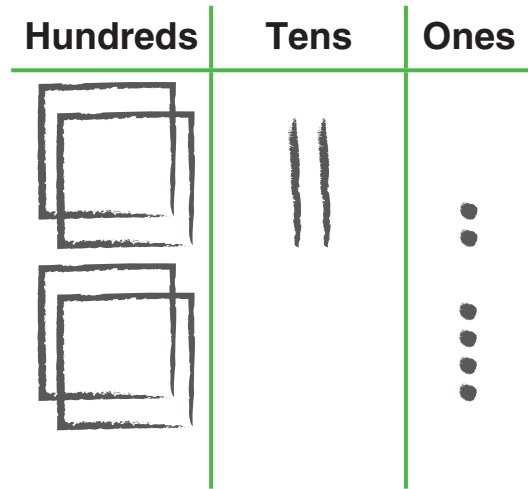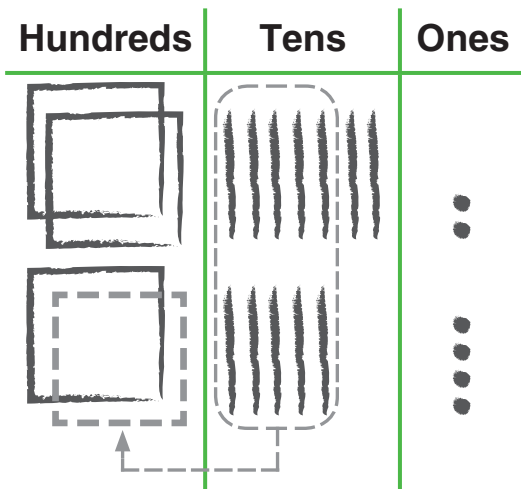
Hundreds	Tens	Ones
I		
2	7	2
+ 1	5	4
	2	6

Hundreds	Tens	Ones

Hundreds	Tens	Ones
1		
2	7	2
+ 1	5	4
4	2	6

Show and Grow   *I can do it!*

1. $383 + 255 = ?$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
3	8	3
+ 2	5	5

✓ Apply and Grow: Practice

2. $238 + 354 = ?$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
☐	☐	
2	3	8
+ 3	5	4

3. $692 + 147 = ?$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
☐	☐	
6	9	2
+ 1	4	7

4. $553 + 250 = ?$

Hundreds	Tens	Ones

	Hundreds	Tens	Ones
	5	5	3
+	2	5	0

Your school wants to collect 750 canned goods. Your school collects 432 cans of soup and 386 cans of vegetables. Does your school reach the goal? Explain.

Models:

$$+$$
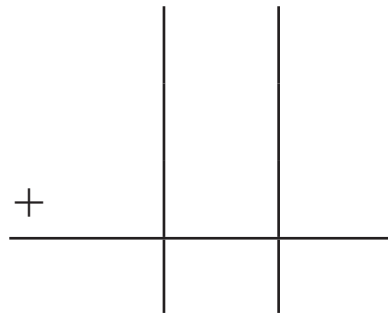
Hundreds	Tens	Ones

Yes   No

_____

_____

Show and Grow   *I can think deeper!*

5. A charity needs 600 volunteers. 328 people sign up on Saturday and 219 people sign up on Sunday. Are there enough volunteers? Explain.

Yes   No

_____

_____

Learning Target: Use models to add 2 three-digit numbers.
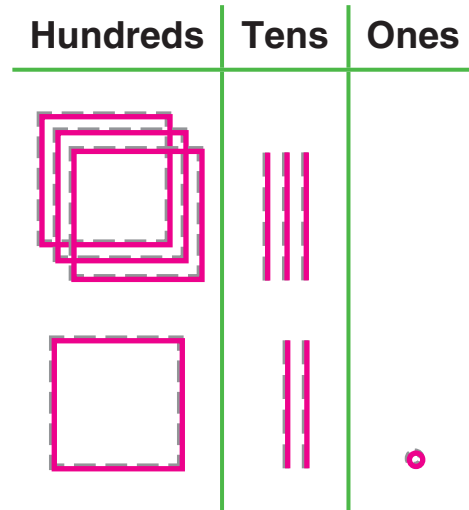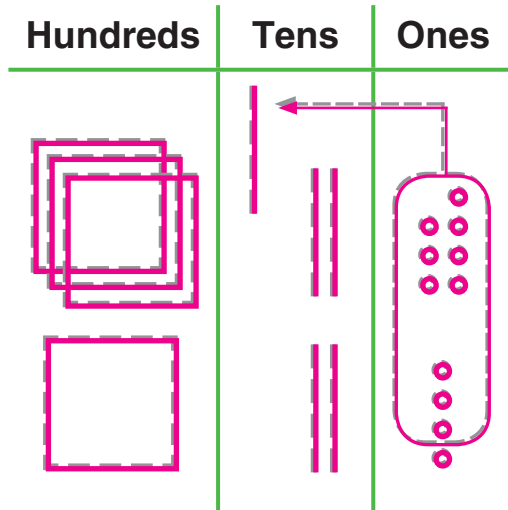
$$327 + 124 = ?$$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
	I	
3	2	7
+ 1	2	4
		I

Hundreds	Tens	Ones

Hundreds	Tens	Ones
	I	
3	2	7
+ 1	2	4
4	5	I

1. $614 + 250 = ?$

Hundreds	Tens	Ones

Hundreds	Tens	Ones
6	I	4
+ 2	5	0

2. $192 + 717 = ?$

Hundreds	Tens	Ones

$$\begin{array}{r} 1\ \ 9\ \ 2 \\ +\ 7\ \ 1\ \ 7 \\ \hline \end{array}$$

---

3. 🔷 **Modeling Real Life** The cafeteria needs 700 trays.
They have 312 brown trays and 342 orange trays.
Does the cafeteria have enough trays? Explain.

Yes   No

_____

_____

---

4. DIG DEEPER! Organizers place 109 Cuban flags and 28 more
Haitian flags than Cuban flags along a parade route. How many
Cuban and Haitian flags do organizers place in all?

_____ flags

Review & Refresh

Draw to show the time.

5. 8:30

6. 4:00
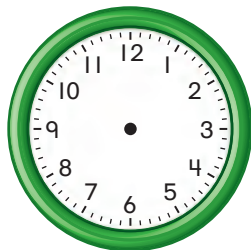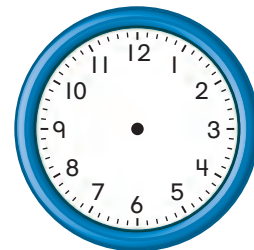
Learning Target: Add
three-digit numbers.

Explore and Grow

Find each sum.

H	T	O
4	4	5
+ 2	5	4

H	T	O
2	5	3
+ 3	1	8

H	T	O
6	2	7
+ 1	9	4

Structure Compare the problems. How are they the
same? How are they different?

_____

_____

_____

Add the ones. Regroup 11 ones as 1 ten and 1 one.

Add the tens. Regroup 10 tens as 1 hundred and 0 tens. Then add the hundreds.

$$
\begin{array}{ccc}
  & 2 & 5 & 9 \\
+ & 3 & 4 & 2 \\
\hline
  & 6 & 0 & 1 \\
\end{array}
$$

Show and Grow   I can do it!

1.
$$
\begin{array}{ccc}
  & 1 & 8 & 4 \\
+ & 4 & 3 & 8 \\
\hline
\end{array}
$$

2.
$$
\begin{array}{ccc}
  & 2 & 2 & 7 \\
+ & 2 & 6 & 7 \\
\hline
\end{array}
$$

3.
$$
\begin{array}{ccc}
  & 4 & 2 & 1 \\
+ & 3 & 5 & 4 \\
\hline
\end{array}
$$

4.
$$
\begin{array}{ccc}
  & 2 & 7 & 9 \\
+ & 5 & 1 & 4 \\
\hline
\end{array}
$$

5.
$$
\begin{array}{ccc}
  & 3 & 1 & 3 \\
+ & 2 & 8 & 8 \\
\hline
\end{array}
$$

6.
$$
\begin{array}{ccc}
  & 3 & 9 & 6 \\
+ & 1 & 5 & 6 \\
\hline
\end{array}
$$

7.
$$
\begin{array}{ccc}
  & 6 & 5 & 9 \\
+ & 2 & 5 & 8 \\
\hline
\end{array}
$$

8.
$$
\begin{array}{ccc}
  & 4 & 6 & 3 \\
+ & 4 & 8 & 5 \\
\hline
\end{array}
$$

9.
$$
\begin{array}{ccc}
  & 2 & 9 & 8 \\
+ & 3 & 7 & 8 \\
\hline
\end{array}
$$

✓ Apply and Grow: Practice

10.
```
    2  4  5
+   6  0  5
_____
```

11.
```
    4  5  0
+   2  9  1
_____
```

12.
```
    1  9  8
+   5  2  7
_____
```

13.
```
    7  4  2
+   1  1  6
_____
```

14.
```
    5  3  7
+   1  7  6
_____
```

15.
```
    3  8  2
+   3  5  1
_____
```

16.
```
    4  6  3
+   1  9  4
_____
```

17.
```
    1  8  6
+   5  6  7
_____
```

18.
```
    6  2  3
+   2  9  8
_____
```

19. **DIG DEEPER!** Find the missing digits.

```
    4   6   2
+  [ ]  4   3
_____
    7   0   5
```

```
    1  [ ]  7
+   1   1   5
_____
    2   5   2
```

```
    3   9   5
+   1   4  [ ]
_____
    5   4   0
```

A puzzle has 540 pieces. You put 254 pieces together. Your friend puts 286 pieces together. Did you and your friend use all of the pieces?
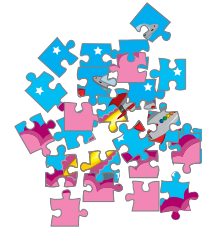
Addition equation:

Yes   No

Show and Grow   *I can think deeper!*

20. A sticker book has 800 stickers. You use 413 of them. Your friend uses 377. Did you and your friend use all of the stickers?
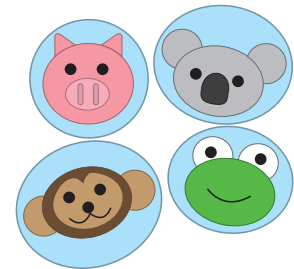
Yes   No

21. **DIG DEEPER!** A bus has 850 miles to travel. How many miles does the bus have left to travel?

Day	Number of Miles
1	423
2	417

_____ miles

Learning Target: Add three-digit numbers.

> Add the ones. Regroup 15 ones as 1 ten and 5 ones.

> Add the tens. Regroup 12 tens as 1 hundred and 2 tens. Then add the hundreds.

$$\begin{array}{r} 4\ 6\ 7 \\ +\ 1\ 5\ 8 \\ \hline 6\ 2\ 5 \end{array}$$

1.
$$\begin{array}{r} 3\ 4\ 1 \\ +\ 2\ 7\ 8 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 7\ 0\ 5 \\ +\ 1\ 2\ 6 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 5\ 8\ 2 \\ +\ 2\ 4\ 9 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 5\ 7\ 3 \\ +\ 3\ 3\ 8 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 2\ 6\ 4 \\ +\ 3\ 1\ 0 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 5\ 1\ 6 \\ +\ 1\ 5\ 6 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 4\ 9\ 0 \\ +\ 1\ 3\ 7 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 6\ 2\ 5 \\ +\ 2\ 9\ 7 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 3\ 6\ 4 \\ +\ 3\ 8\ 6 \\ \hline \end{array}$$

10. **Open-Ended** Complete the addition problem so that you do *not* need to regroup to add.

$$
\begin{array}{r}
2 \\
+\ \ 3 \\
\hline
\end{array}
\quad
\begin{array}{c}
5 \\
\underline{\quad\quad} \\
\end{array}
\quad
\begin{array}{r}
6 \\
3 \\
\hline
\end{array}
$$

11. **MP** **Modeling Real Life** The art room has 645 markers. One class is using 312 markers. Another class is using 209. Are both classes using all the markers?

Yes   No

12. **DIG DEEPER!** 340 water balloons need to be filled. You fill 175 and your friend fills 10 fewer than you. How many more water balloons need to be filled?
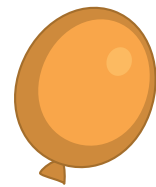
_____ water balloons

Review & Refresh

Use place value to find the missing numbers.

13. 324, 325, _____, 327, _____, _____, _____

14. 463, 473, _____, 493, _____, _____, _____

Learning Target: Add up
to 4 two-digit numbers.

Explore and Grow

Use any strategy to solve.

Newton has 19 red balloons, 23 green balloons,
31 yellow balloons, and 17 blue balloons. How many
balloons does he have in all?

_____ balloons

MP **Compare Arguments** Compare your strategy to your
partner's strategy. Which strategy makes the most sense
to use with these numbers?

_____

_____

_____

When adding more than two numbers, look for **compatible numbers** to help you add.

```
  4 2
  2 ③
  3 5        10
+ 2 ⑦
  1 2 7
```

You can make a 10 or use known facts.

```
  4 ②
  2 ③        5
  3 5
+ 2 7
  1 2 7
```

Show and Grow   I can do it!

1.
```
    2 6
    8 8
+   3 2
```

2.
```
    6 0
    1 5
+   5 5
```

3.
```
    7 7
    9 6
+   2 4
```

4.
```
    5 7
    1 3
    3 3
+   4 8
```

5.
```
    8 9
    6 2
    1 0
+   5 1
```

6.
```
    9 5
    7 1
    4 6
+   5 3
```

✓ Apply and Grow: Practice

7.
```
    1 7
    8 4
+   2 3
```

8.
```
    2 1
    4 2
+   3 9
```

9.
```
    9 2
    5 8
+   1 9
```

10.
```
    5 8
    1 2
      6
+   2 4
```

11.
```
    4 2
    2 6
    3 3
+   1 4
```

12.
```
    1 3
    5 2
    3 7
+   4 8
```

13.
```
    6 4
    2 0
    3 5
+   5 6
```

14.
```
    3 6
    9 2
    4 0
+   1 5
```

15.
```
    1 9
      3
    4 7
+   2 5
```

16. **MP Number Sense** Solve. Which two digits in the ones place did you add first? Explain.

$7 + 15 + 36 + 25 =$ _____

_____

_____

_____

Think and Grow: Modeling Real Life

How many seeds does your class plant in all?

Type of Seed	Number Planted
Sunflower	81
Marigold	92
Pumpkin	83
Tomato	78

Addition problem:

_____ seeds

Show and Grow   I can think deeper!

17. How many fish are there in all?

Type of Fish	Number of Fish
Angelfish	43
Rainbow fish	37
Swordtail	29
Tetra	59

_____ fish

18. **DIG DEEPER!** You need 100 craft sticks for a project. You have a 24-pack, a 32-pack, and a 36-pack. How many more craft sticks do you need?

_____ more craft sticks

Learning Target: Add up to 4 two-digit numbers.

When adding more than two numbers, look for compatible numbers to help you add.

$$
\begin{array}{r}
1 \\
3\ \boxed{7} \\
1\ 4 \\
2\ \boxed{3} \\
+\ \ 5\ 4 \\
\hline
1\ 2\ 8
\end{array}
\qquad \boxed{10}
$$

1.
$$
\begin{array}{r}
4\ 3 \\
6\ 2 \\
+\ \ 1\ 8 \\
\hline
\end{array}
$$

2.
$$
\begin{array}{r}
7\ 4 \\
3\ 0 \\
+\ \ 6\ 9 \\
\hline
\end{array}
$$

3.
$$
\begin{array}{r}
3\ 4 \\
5\ 7 \\
+\ \ 2\ 7 \\
\hline
\end{array}
$$

4.
$$
\begin{array}{r}
5\ 1 \\
1\ 6 \\
6 \\
+\ \ 2\ 4 \\
\hline
\end{array}
$$

5.
$$
\begin{array}{r}
8\ 4 \\
6\ 2 \\
1\ 0 \\
+\ \ 3\ 1 \\
\hline
\end{array}
$$

6.
$$
\begin{array}{r}
6\ 6 \\
4\ 9 \\
3\ 4 \\
+\ \ 2\ 1 \\
\hline
\end{array}
$$

7.
$$
\begin{array}{r}
5\ 0 \\
2\ 6 \\
4\ 5 \\
+\ \ 4\ 4 \\
\hline
\end{array}
$$

8.
$$
\begin{array}{r}
7\ 3 \\
1\ 4 \\
2\ 6 \\
+\ \ 2\ 7 \\
\hline
\end{array}
$$

9.
$$
\begin{array}{r}
6\ 5 \\
8 \\
3\ 2 \\
+\ \ 7\ 1 \\
\hline
\end{array}
$$

10. 🔴 **Number Sense** Find the missing number.

$$38 + 41 + \boxed{} + 52 = 159$$

---

11. 🔵 **Modeling Real Life** How many sandwiches are there in all?
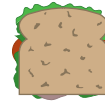
Type of Sandwich	Number of Sandwiches
Turkey	59
Ham	23
Cheese	35
Peanut Butter	45

_____ sandwiches

---

12. **DIG DEEPER!** You need 210 votes to win a school election. You receive 67 votes from the first grade and 93 votes from the second grade. How many more votes do you need?

_____ votes

Review & Refresh

Write a number that makes the statement true.

13. $865 <$ _____

14. _____ > 374

15. $736 =$ _____

16. $451 >$ _____

Explore and Grow

Use two different strategies to find $274 + 519$.

Addition Strategies
Add on an Open Number Line
Compensation
Partial Sums
Use Models to Add
Regrouping

Communicate Clearly Explain why you chose one of your strategies.

_____

_____

_____

$$395 + 128 = ?$$

One Way: Use compensation.

$$395 + \qquad 128 \quad = \quad ?$$

$\oplus \underline{}5 \qquad \ominus \underline{}5$

$$\underline{400} + \quad \underline{123} = \underline{523}$$

Think: Why do these strategies work?

Another Way: Use a number line.

$+100 \qquad +20 \quad +5 \quad +3$

395   495   515 520 523
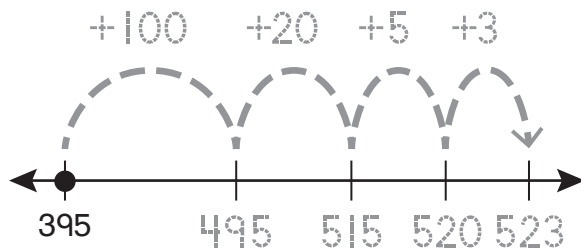
$$395 + 128 = \underline{523}$$

Think: Are there any other strategies you can use?

Show and Grow   I can do it!

Choose any strategy to solve. Explain how you solved.

1. $379 + 240 =$ _____

_____

_____

✔ Apply and Grow: Practice

Choose any strategy to solve. Explain how you solved.

2. $426 + 355 =$ _____

_____

_____

3. $671 + 219 =$ _____

_____

_____

4. 🍎 **YOU BE THE TEACHER** Your friend uses compensation to solve. Is your friend correct? Explain.

$$182 + \quad 506 = \ ?$$
$$\bigoplus \ \underline{6} \quad \bigominus \ \underline{6}$$
$$188 + \quad 500 = 688$$

_____

_____

Choose any strategy to solve. Explain how you solved.

You have 567 pennies in a piggy bank and 428 in a jar. How many pennies do you have in all?

Addition equation:

_____ pennies

_____

_____

Show and Grow   *I can think deeper!*

Choose any strategy to solve. Explain how you solved.

5. A beekeeper has 494 worker bees and 376 drone bees. How many bees does he have in all?
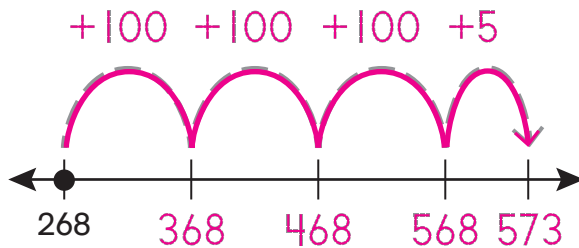
_____ bees

_____

_____

6. There are 365 days in one year. How many days are there in two years?

_____ days

_____

_____

Learning Target: Choose and explain a strategy to add.

$268 + 305 = ?$

One Way: Use a number line.

$+100 \quad +100 \quad +100 \quad +5$

268　368　468　568　573

$268 + 305 = \underline{573}$

Another Way: Use place value.

$$
\begin{array}{c|c|c}
 & 1 & \\
2 & 6 & 8 \\
+ \; 3 & 0 & 5 \\
\hline
5 & 7 & 3 \\
\end{array}
$$

Choose any strategy to solve. Explain how you solved.

1. $656 + 181 = \underline{}$

_____

_____

_____

2. $567 + 348 = \underline{}$

_____

_____

3. **DIG DEEPER!** Find the missing numbers.

$$\begin{array}{r} 5\ \ 4\ \ 1 \\ +\ \boxed{} \\ \hline 7\ \ 6\ \ 5 \end{array} \qquad \begin{array}{r} 3\ \ 5\ \ 8 \\ +\ \boxed{} \\ \hline 8\ \ 7\ \ 0 \end{array} \qquad \begin{array}{r} 1\ \ 0\ \ 8 \\ +\ \boxed{} \\ \hline 5\ \ 4\ \ 2 \end{array}$$

Choose any strategy to solve. Explain how you solved.

4. **MP Modeling Real Life** A farmer has 415 tomato plants and 250 pepper plants. How many plants does he have in all?

_____ plants

_____

_____

5. **MP Modeling Real Life** You practice the trumpet for 45 minutes each day. How many minutes do you practice in 4 days?
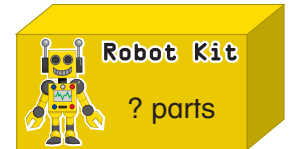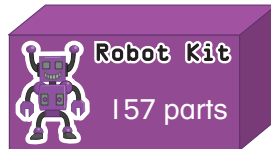
_____ minutes

_____

_____

Review & Refresh

6. $97 - 71 = $ _____

7. $56 - 14 = $ _____

four hundred fifty-two

Name _____

A store has four different robot kits.

Robot Kit	Robot Kit	Robot Kit	Robot Kit
280 parts	157 parts	360 parts	? parts

1. How many parts are there in the green, purple, and orange kits?

_____ parts

2. **Maintain Accuracy** The orange kit has 183 fewer parts than the yellow kit. How many parts are in the yellow kit?

_____ parts

3. Your friend wants to buy two kits so that he has 700 parts. Which two kits should he buy?

_____ and _____

4. **a.** You have some robot parts at home. You buy two purple kits and one orange kit. Now you have 774 parts. How many parts did you have to start?
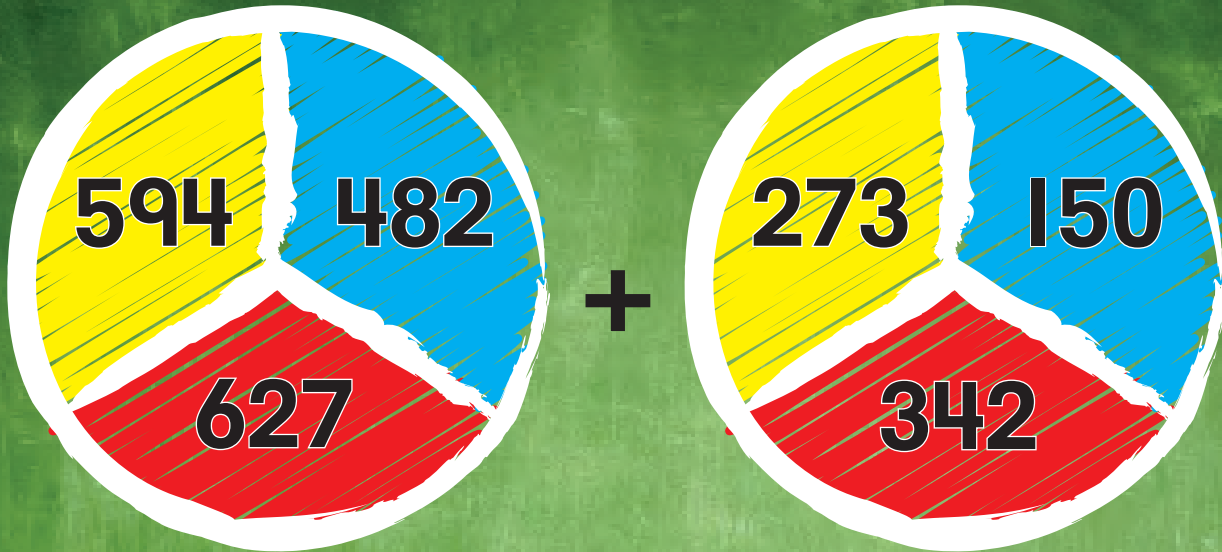
_____ parts

b. Your cousin has 450 robot parts at home. She buys a kit and now has 36 more parts than you. Which kit did she buy?

_____ kit

Three in a Row: Three-Digit Addition

To Play: Players take turns. On your turn, spin both spinners. Add the two numbers and cover the sum. Continue playing until someone gets three in a row.

594   482
627

+

273   150
342

Game A

867	632	777
900	936	824
755	969	744

Game B

755	900	824
969	744	936
632	867	777

Name _____

9.1 Add 10 and 100

1. 230 + 10 = _____

2. 419 + 10 = _____

3. 623 + 100 = _____

4. 899 + 10 = _____

5. 384 + 100 = _____

6. 167 + 100 = _____

9.2 Use a Number Line to Add Hundreds and Tens

7. 592 + 340 = _____

⟷

8. **Modeling Real Life** You have 170 football stickers and some baseball stickers. You have 360 stickers in all. How many baseball stickers do you have?

⟷

_____ baseball stickers

Use a Number Line to Add Three-Digit Numbers

9. 365 + 342 = _____

_____

10. 604 + 217 = _____

9.4

Use Compensation to Add Three-Digit Numbers

Use compensation to add.

11. 205 + 631 = ?

○ ____   ○ ____

____ + ____ = ____

12. 452 + 311 = ?

○ ____   ○ ____

____ + ____ = ____

---

13. **YOU BE THE TEACHER** Newton uses compensation to find 198 + 267. Is he correct? Explain.

198 + 267 = ?
⊕ __2   ⊕ __2
200 + 269 = 469

_____

_____

_____

Use Partial Sums to Add Three-Digit Numbers

14.
```
    2 6 4
  + 4 8 3
```

15.
```
    8 0 7
  + 1 2 6
```

16.
```
    3 2 5
  + 3 2 4
```

17.
```
    6 4 0
  + 2 9 3
```

9.6 Use Models to Add Three-Digit Numbers

18. $395 + 410 = ?$

Hundreds	Tens	Ones

```
    3 | 9 | 5
  + 4 | 1 | 0
```

9.7 Add Three-Digit Numbers

19. **Number Sense** Find the missing digits.

```
    5 6 1
  +   5 7
  ------
    9 1 8
```

```
    1   5
  + 2 6 4
  ------
    3 7 9
```

```
    6 4 6
  + 1 4
  ------
    7 9 2
```

20.

```
    5 4
    3 2
+   2 0
_____
```

21.

```
    4 3
    5 8
+   1 7
_____
```

22.

```
    1 6
    8 1
+   7 4
_____
```

23.

```
    9 2
    5 2
    3 8
+   4 1
_____
```

24.

```
    9 0
      5
    1 3
+   4 8
_____
```

25.

```
    6 6
    4 4
    3 0
+     9
_____
```

9.9 **Explain Addition Strategies**

Choose any strategy to solve. Explain how you solved.

26. $538 + 176 =$ _____

_____

_____