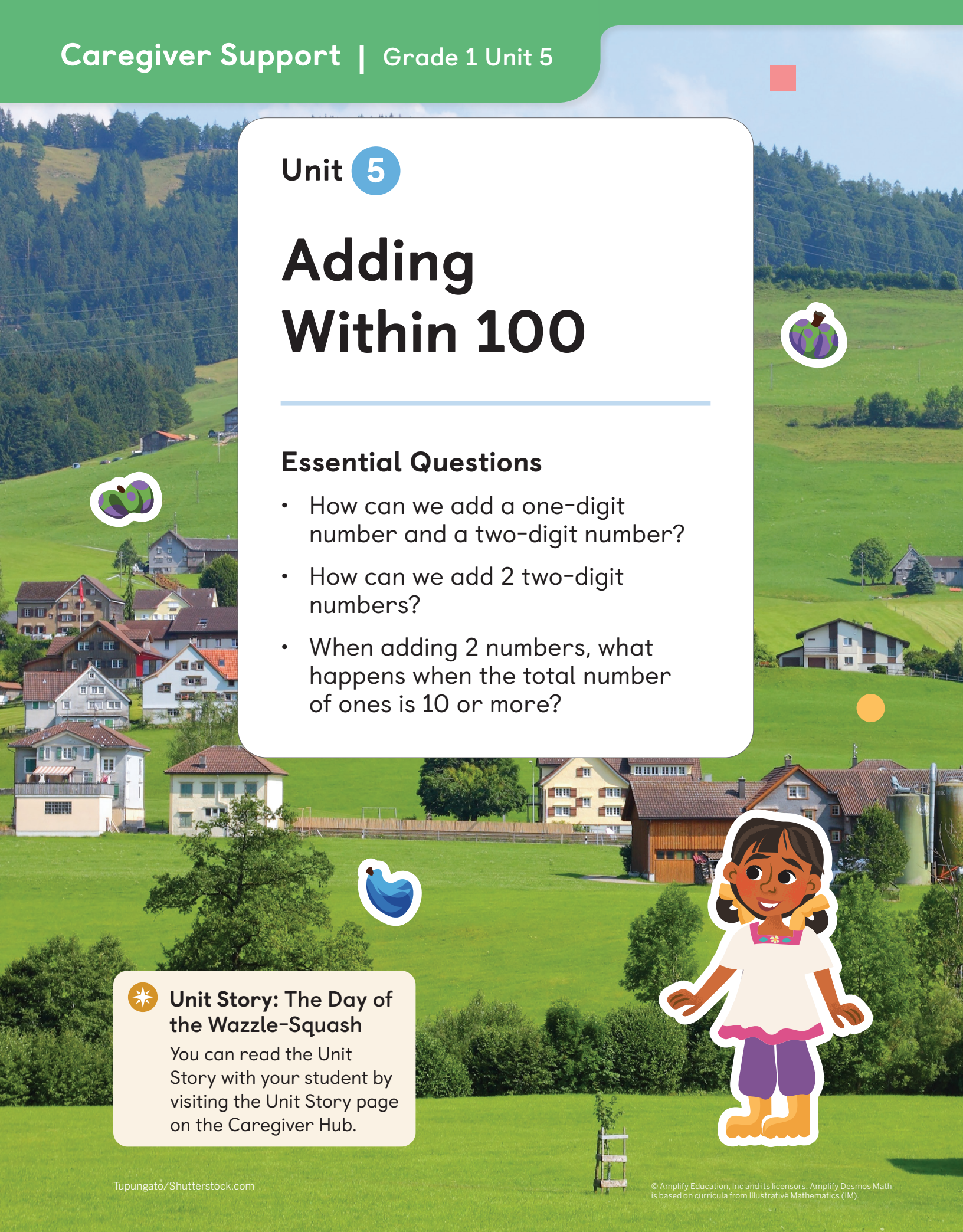
Unit 5

# Adding Within 100

## Essential Questions

- How can we add a one-digit number and a two-digit number?
- How can we add 2 two-digit numbers?
- When adding 2 numbers, what happens when the total number of ones is 10 or more?



**Unit Story: The Day of the Wazzle-Squash**

You can read the Unit Story with your student by visiting the Unit Story page on the Caregiver Hub.

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## Unit Investigation

**Lesson 1** is the Unit Investigation. Students add within 100 and explore how adding ones or tens to a number affects the sum to build curiosity and apply their own knowledge in a variety of ways. Use the **Caregiver Connection** to help students continue to explore the math they will see in the unit.

## Caregiver Connection

Students may enjoy naming, writing, or adding quantities within 100 at home. You can ask:

- "How many tens are in the number?"
- "How many ones are in the number?"
- "What do you notice about the tens and ones when you add the number together?"

## Summary | Lesson 2

When adding to a two-digit number, it is helpful to think about if an addend is a number of tens or a number of ones.

$57 + 2 = \underline{77}$ 👎

$57 + 2 = \underline{59}$ 👍

2 ones are being added to 57, so only the ones should change.

## Try This

**For Problems 1–4, circle the number of tens or the number of ones that makes the equation true.**

**1** 25 + _____ = 29

4 tens  4 ones

**2** 36 + _____ = 56

2 tens  2 ones

**3** 54 + _____ = 84

3 tens  3 ones

**4** 42 + _____ = 47

5 tens  5 ones

## Summary | Lesson 3

You can count on by 10 and by 1 to find the sum of 2 two-digit numbers. You can also find the total number of tens and the total number of ones in the numbers.

34 + 42 = 76

44, 54, 64, 74, 75, 76

## Try This

**1** A donation center received 32 shirts on Monday.
It received 24 more shirts on Tuesday.
How many shirts did it receive on Monday and Tuesday?

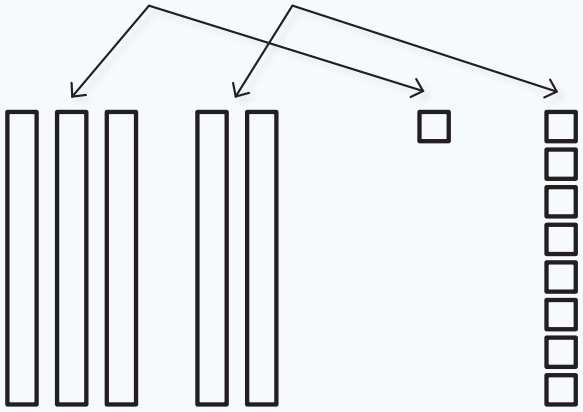
Show your thinking.

**answer:** _____ **equation:** _____

## Summary | Lesson 4

When creating a representation to help others understand how you solved a problem, it can be helpful to include more than 1 equation.

31 + 28



30 + 20 = 50
1 + 8 = 9
50 + 9 = 59

## Try This

1 Clare has 54 collectible cards.
Diego has 25 collectible cards.
How many cards do they have altogether?

Show your thinking.

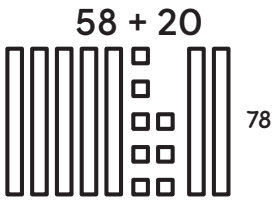
answer: _____ equation: _____

**In this sub-unit . . .**

- We added ones or tens to a two-digit number.

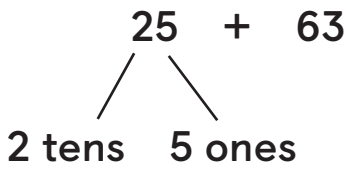
58 + 2

58, 59, 60

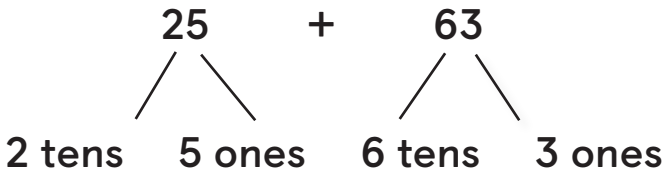



*Math tip:* Add tens and tens, and add ones and ones.

- We used what we know about adding tens or ones to add 2 two-digit numbers.




63, 73, 83, 84, 85, 86, 87, 88

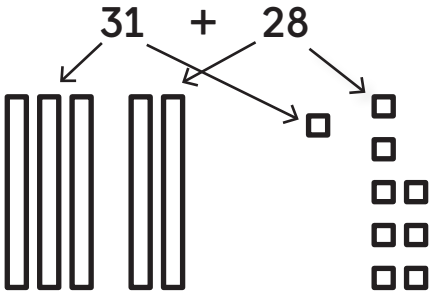



2 tens + 6 tens = 8 tens

5 ones + 3 ones = 8 ones

8 tens and 8 ones is 88.

- We created representations to show our thinking and used circling, lines or arrows, and equations to make our thinking clear.




30 + 20 = 50

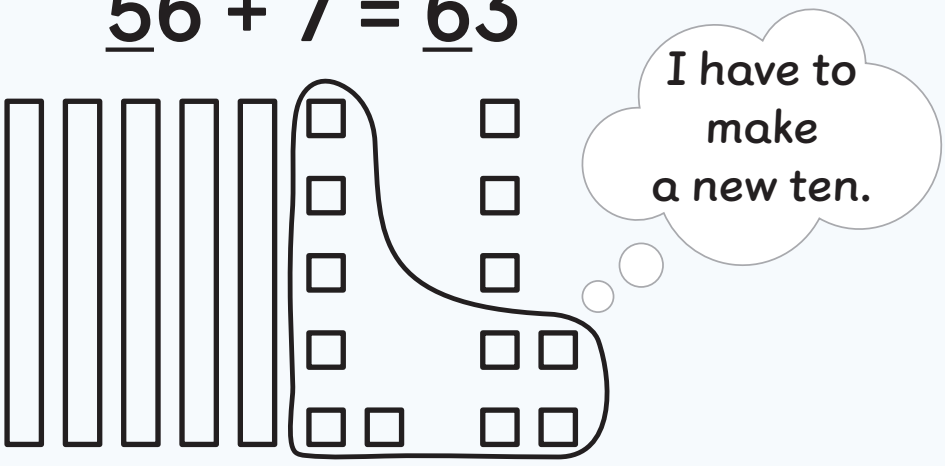
1 + 8 = 9

50 + 9 = 59

## Summary | Lesson 5

When adding two-digit numbers and one-digit numbers, sometimes you have to make a new ten.

$$\underline{5}6 + 7 = \underline{6}3$$




## Try This

**1** At first, 35 helpers came to clean up the town.
Then 4 more helpers came.
How many helpers were there altogether?

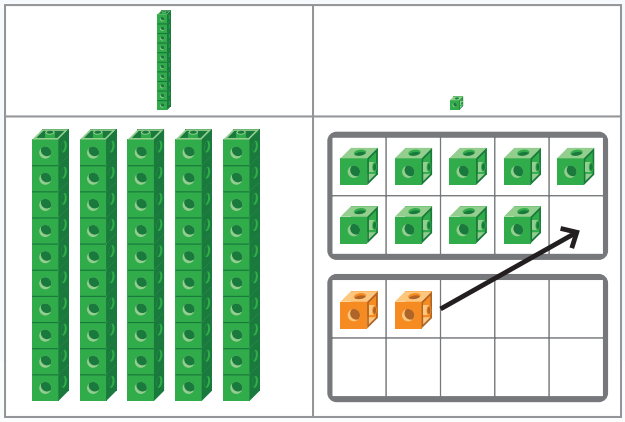
Show your thinking.

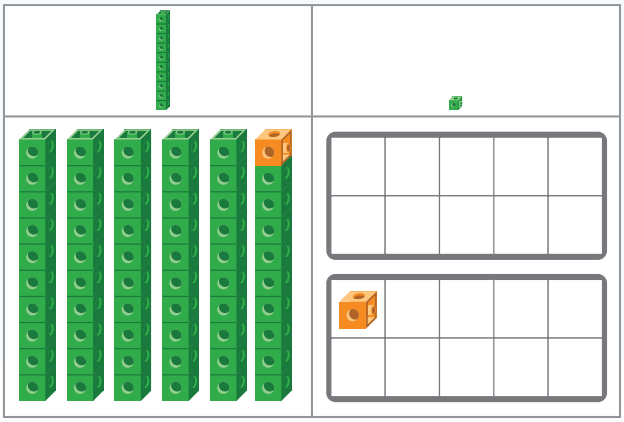
**answer:** _____ **equation:** _____

## Summary | Lesson 6

When adding two-digit numbers and one-digit numbers, grouping the ones in an organized way can help you see if there are enough ones to make a new ten.

$$59 + 2 = \underline{61}$$





## Try This

**For Problems 1 and 2, find the number that makes the equation true.**

Show your thinking.

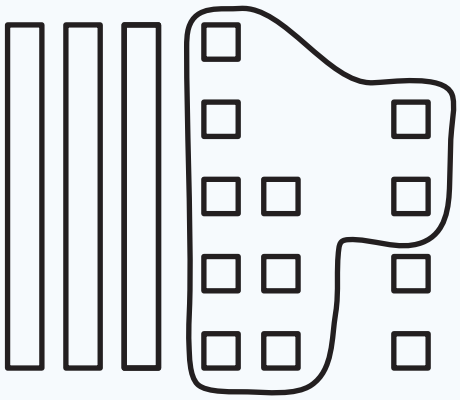
1 $34 + 8 =$ _____

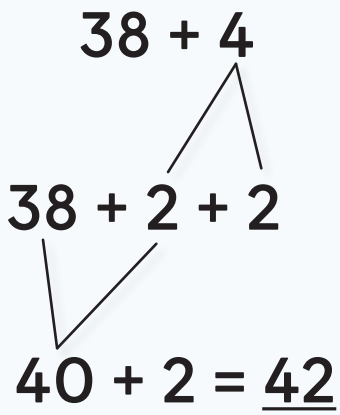
2 $8 + 56 =$ _____

## Summary | Lesson 7

When adding two-digit numbers and one-digit numbers, you can break apart the one-digit addend to get to the next ten and then add the remaining ones.

$$38 + 4$$






## Try This

**For Problems 1 and 2, find the numbers that make the equations true.**

**1** $26 + 4 =$ _____

$26 + 4 + 3 =$ _____

**2** $43 + 7 =$ _____

$43 + 7 + 2 =$ _____

## Summary | Lesson 8

If the total number of ones in an addition expression is 10 or more, you will make a new ten when finding the sum. If the total number of ones is less than 10, you will not make a new ten when finding the sum.

**5 + 67**

5 + 7 = 12
12 ones
is enough to make
a new ten.

**5 + 63**

5 + 3 = 8
8 ones
is not enough to
make a new ten.

## Try This

**1** Circle **3** numbers that would make a sum with a new ten.

53 + _____

1 2 3 4 5 6 7 8 9

**2** Circle **4** numbers that would make a sum with a new ten.

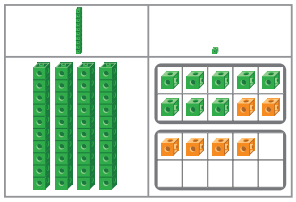
4 + _____

50 51 52 53 54 55 56 57 58 59

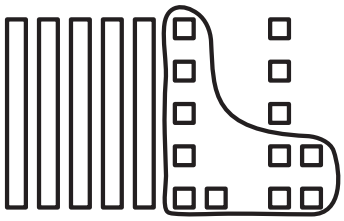
**In this sub-unit . . .**

- We noticed that sometimes it is necessary to make a new ten when adding a one-digit number and a two-digit number.

48 + 6 = 54

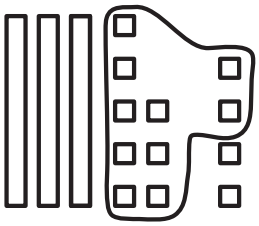


56 + 7 = 63



*Math tip:* It is helpful to group the ones in an organized way to see if there are enough ones to make a new ten.

- We saw that we can break apart an addend to make the next ten and then add on any remaining ones to find the sum.



38 + 4

38 + 4

38 + 2 + 2

40 + 2 = 42

- We explored how we can know if we will need to make a ten before adding.

8 + 44 — *The total number of ones in both addends is more than 10, so I will need to make a new ten.*

## Summary | Lesson 9

When adding 2 two-digit numbers, sometimes you need to make a new ten. There are many strategies you can use to find the sums of 2 two-digit numbers.

**27 + 34**

Break apart 1 addend and count on by tens and ones.

27, 37, 47, 57, 58, 59, 60, 61

Find the total amount of tens and the total amount of ones.

20 + 30 = 50
7 + 4 = 11
50 + 11 = 61

## Try This

**1** Clare made 24 bags of sweet potato crisps.
She also made 13 bags of taro crisps.
How many bags of crisps did Clare make altogether?

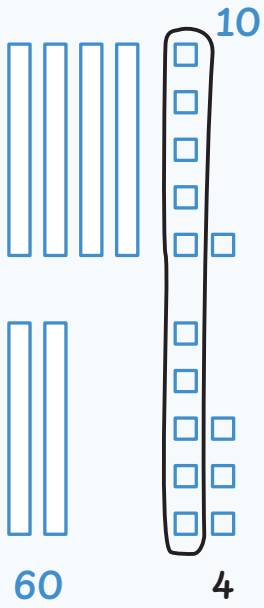
Show your thinking.

**answer:** _____ **equation:** _____

## Summary | Lesson 10

The number of tens in a sum is made up of the total number of tens in each addend and, sometimes, a ten made from the ones in both addends.

$46 + 28 = 74$




## Try This

**For Problems 1 and 2, find the number that makes the equation true.**

Show your thinking.

1 $35 + 13 =$ _____

2 $35 + 15 =$ _____

## Summary | Lesson 11

When adding 2 two-digit numbers, it can be helpful to think about the total number of tens in the sum to know if an answer makes sense.

**52 + 29** I know the sum should have 8 tens.

I will try adding again.

**First try:** My answer is 71.

My answer makes sense.

**Second try:** My answer is 81.

## Try This

**For Problems 1–3, circle to make the statement true.**

**1** The sum of 33 + 32 will be _____ 60.

greater than less than equal to

**2** The sum of 35 + 31 will be _____ 70.

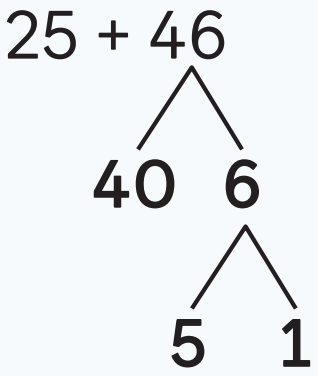
greater than less than equal to

**3** The sum of 38 + 36 will be _____ 70.

greater than less than equal to

## Summary | Lesson 12

Breaking apart an addend to make a new ten is one strategy for finding a sum.




Add 5 to make a ten →

$25 + \mathbf{40} = 65$

$65 + \mathbf{5} = 70$

$70 + \mathbf{1} = \underline{71}$

## Try This

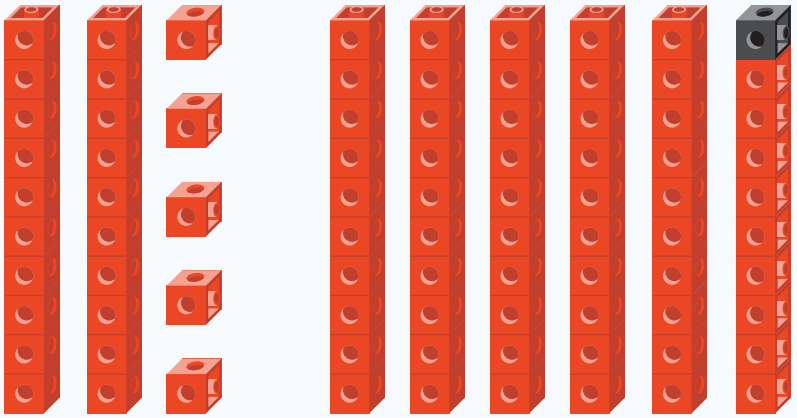
**1** At a plant nursery, there are 39 flower plants and 24 citrus plants.
How many plants are there in the nursery?

Show your thinking.

**answer:** _____ **equation:** _____

## Summary | Lesson 13

Just like with smaller numbers, sometimes it can be helpful to change 1 or both addends to a new number to help you find the sum.



$25 + 59$

$25 + \mathbf{60} = 85$

$85 - \mathbf{1} = 84$

## Try This

**1** For a cup stacking game, Diego uses 49 red cups and 32 green cups.
How many cups does Diego use altogether?

Show your thinking.

**answer:** _____ **equation:** _____

## Summary | Lesson 14

One way to deepen your understanding of addition is to practice different strategies.

$$28 + 55$$

The strategy I often use:

$$20 + 50 = 70$$
$$8 + 5 = 13$$
$$70 + 13 = \underline{83}$$

A strategy I want to try:

$$30 + 55 = 85$$
$$85 - 2 = \underline{83}$$

## Try This

**1** Use the data to answer the question.

| flower plants | vegetable plants | citrus plants |
|---|---|---|
| 19 | 23 | 17 |

How many flower plants and vegetable plants are there?

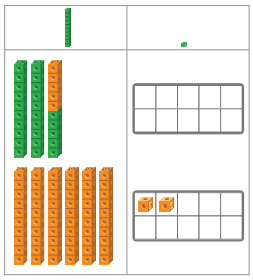
Show your thinking.

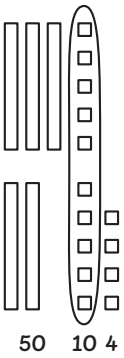
**answer:** _____

## In this sub-unit . . .

- We noticed that sometimes it is necessary to make a new ten when adding 2 two-digit numbers.

25 + 67






35 + 29

30 + 20 + 10 = 60
60 + 4 = 64

- We saw that we can break apart addends in different ways to find sums of 2 two-digit numbers.

25 + 48
20 5

20 + 48 = 68
68 + 5 = ___
68, 69, 70, 71, 72, 73

25 + 48
20 5

20 + 48 = 68
68 + 5
2 3
68 + 2 = 70
70 + 3 = 73

***Math tip:*** When breaking apart addends, it can be helpful to think about how you can make a ten.

# Try This | Answer Key

## Lesson 2

1 4 ones

2 2 tens

3 3 tens

4 5 ones

## Lesson 3

1 Sample work and equation shown.

32 + 20 = 52

52, 53, 54, 55, 56

answer: 56 shirts equation: 32 + 24 = 56

## Lesson 4

1 Sample work and equation shown.

50 + 20 = 70

4 + 5 = 9

answer: 79 cards equation: 54 + 25 = 79

## Lesson 5

1 Sample work and equation shown.

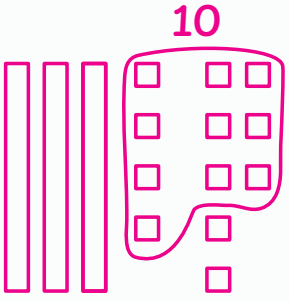
35 36 37 38 39

answer: 39 helpers equation: 35 + 4 = 39

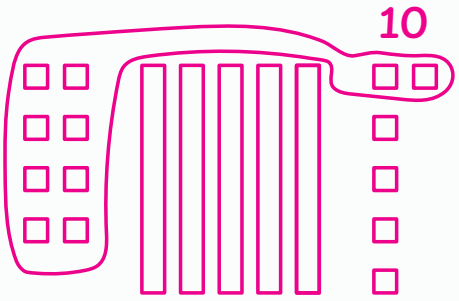
## Lesson 6

Sample work shown.

1 42




2 64



## Lesson 7

**1** 26 + 4 = 30
26 + 4 + 3 = 33

**2** 43 + 7 = 50
43 + 7 + 2 = 52

## Lesson 8

**1** 7, 8, 9

**2** 56, 57, 58, 59

## Lesson 9

**1** Sample work and equation shown.
24, 34, 35, 36, 37
answer: 37 bags equation: 24 + 13 = 37

## Lesson 10

Sample work shown.

**1** 48

30 + 10 = 40
5 + 3 = 8
40 + 8 = 48

**2** 50

30 + 10 = 40
5 + 5 = 10
40 + 10 = 50

## Lesson 11

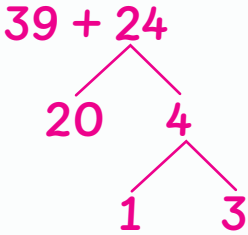
**1** greater than

**2** less than

**3** greater than

## Lesson 12

**1** Sample work and equation shown.




39 + 20 = 59
59 + 1 = 60
60 + 3 = 63

answer: 63 plants equation: 39 + 24 = 63

## Lesson 13

**1** Sample work and equation shown.

50 + 32 = 82

82 − 1 = 81

answer: 81 cups equation: 49 + 32 = 81

## Lesson 14

**1** Sample work shown.

19 + 23

10 + 20 = 30

9 + 3 = 12

30 + 12 = 42

answer: 42 plants