## Lesson 5: Another Addition Algorithm

- Let's learn another algorithm to add.


## Warm-up: Notice and Wonder: Another Curious Table

What do you notice? What do you wonder?

| + | 98 | 99 | 100 | 101 | 102 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 98 |  | 197 |  | 199 |  |
| 99 | 197 |  | 199 |  | 201 |
| 100 |  | ? |  | ? |  |
| 101 | 199 |  | 201 |  | 203 |
| 102 |  | 201 |  | 203 |  |

## 5.1: A New Addition Algorithm

Here are two algorithms for adding $367+231$.
Han's algorithm

| 367 |  |  |
| ---: | ---: | ---: |
| $+\quad 231$ |  |  |
|  | 8 | step 1 |
| 90 | step 2 |  |
| $+\quad 500$ | step 3 |  |
| 598 | step 4 |  |

Elena's algorithm

Discuss with your partner:

1. How is Elena's algorithm different from Han's algorithm?
2. Why do both algorithms work?

## 5.2: Compose New Units

Here are two algorithms for adding $365+182$.
Han's algorithm

| 365 |  |  |
| ---: | ---: | ---: |
| $+\quad 182$ |  |  |
|  | 7 | step 1 |
| 140 | step 2 |  |
| $+\quad 400$ | step 3 |  |
| 547 | step 4 |  |

Elena's algorithm


1. How do the algorithms show the 14 tens differently?
2. Try Elena's algorithm to find the value of each sum.
a. $174+352$
b. $273+619$
c. $354+198$
d. $525+376$
