## Lesson 9: A Sum of Equal Addends

- Let's match expressions with arrays.


## Warm-up: Estimation Exploration: How Many Waffles?

How many waffles are on the tray?


Record an estimate that is:

| too low | about right | too high |
| :---: | :---: | :---: |
|  |  |  |

## 9.1: Sums of Rows and Sums of Columns

Mai and Diego represented the same array with different expressions.


Diego's expression
$2+2+2+2+2+2$

Mai's expression
$6+6$

Who do you agree with?

Show your thinking using diagrams, symbols, or other representations.

## 9.2: Card Sort: Arrays and Expressions

Your teacher will give you a set of cards that show arrays, expressions and a total number. Find the cards that match.

## 9.3: Add It All Up

1. a. How many counters are there in all?

b. Explain how you found the total number of counters.
c. Circle 2 expressions that represent the array.

$$
\begin{aligned}
& 3+3+3+3 \\
& 3+3+3 \\
& 4+3 \\
& 4+4+4 \\
& 4+4+4+4
\end{aligned}
$$

2. a. How many counters are there in all?

b. Explain how you found the total number of counters.
c. Circle 2 expressions that represent the array.
$2+2+2+2+2+2+2$
$6+6$
$7+7$
$2+2+2+2+2$
