

## Activity 5 Assessment Using Variables

### Using Variables to Represent a Problem as an Equation

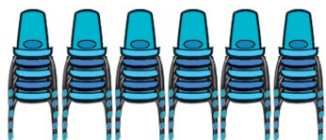
Interprets word problems/pictures and identifies the unknown part.

Our class needs to set up rows of 6 chairs for a presentation. There are 30 chairs altogether. How many rows do we need?



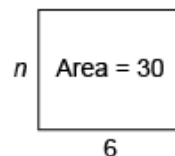
“The unknown is the number of rows of 6 chairs needed to make an array of 30 chairs.”

Translates word problems into equations using variables, operations, and numbers.



“The unknown,  $n$ , is the number of rows. I know there are 6 chairs in each row and a total of 30 chairs. So,  $6n = 30$ .”

Interprets and uses visual representations to describe equivalent relationships using more than one equation (including formulas).



“I know the area of a rectangle is base multiplied by height, which is 30. If the base is 6, then the height must be  $n$ . I could write the equation  $30 = 6n$  or  $30 \div 6 = n$ .”

Flexibly writes algebraic equations using a variety of strategies.

$$6n = 30$$

$$30 \div n = 6$$

“I can use the inverse operation to rewrite the equation.”

### Observations/Documentation