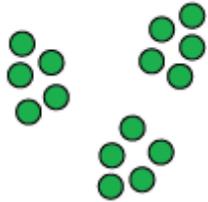


# Activity 30 Assessment

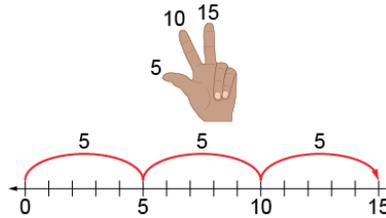
## Multiplying and Dividing Larger Numbers

### Developing Fluency with Multiplication and Division

Models with concrete materials and counts by 1s



Uses skip-counting forward and backward



Works flexibly with numbers (e.g., uses repeated addition or subtraction, familiar facts, commutative property)

$$5 + 5 + 5 = 15$$

I know  $2 \times 5 = 10$  and one more group of 5 is 15, so  $3 \times 5 = 15$ .

I know  $5 \times 3 = 15$ , so  $3 \times 5$  also equals 15."

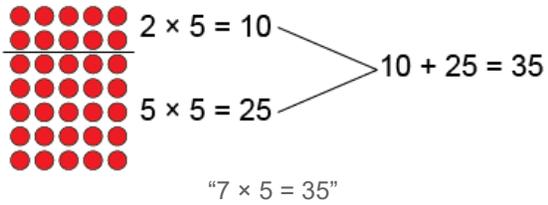
### Observations/Documentation

# Activity 30 Assessment

## Multiplying and Dividing Larger Numbers

### Developing Fluency with Multiplication and Division (con't)

Uses distributive property to help with unfamiliar facts



Applies multiplicative thinking to compare quantities (solve ratio problems)

1	2	3	4	5
$\times 5$				
5	10	15	20	25

"For each hand there are 5 fingers. The ratio of hands to fingers is 1:5. That means I multiply by 5. So, on 2 hands there are  $2 \times 5$ , or 10 fingers."

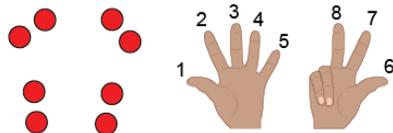
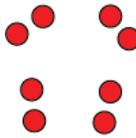
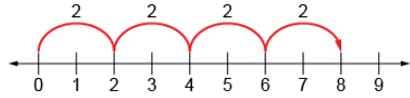
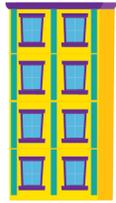
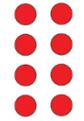
Fluently multiplies and divides

"I just know that  $7 \times 5 = 35$ ."

### Observations/Documentation

# Activity 30 Assessment

## Multiplying and Dividing Larger Numbers

Multiplying 1-Digit Numbers			
<p>Groups objects and counts by 1s</p> 	<p>Groups objects and skip-counts</p>  <p>"2, 4, 6, 8"</p>	<p>Uses repeated addition</p>  <p>"2 + 2 + 2 + 2 = 8."</p>	<p>Models using multiplicative thinking</p>  <p>"4 rows of 2 is 8."</p>
Observations/Documentation			
<p>Understands relationship between operations</p> <p>"I can think of <math>2 + 2 + 2 + 2 = 8</math> as 4 groups of 2."</p> 	<p>Uses multiplication symbol</p> <p>"<math>4 \times 2 = 8</math>"</p>	<p>Multiplies fluently (e.g., uses properties of multiplication)</p> <p>"<math>4 \times 2 = 8</math> <math>2 \times 4 = 8</math>"</p>	<p>Creates and solves problems involving equal groups</p> <p><math>4 \times 2 = 8</math></p> <p>"There are 4 bicycles in the shed. How many wheels are there altogether?"</p>
Observations/Documentation			