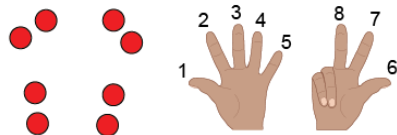


# Activity 31 Assessment

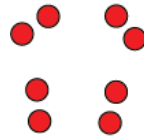
## Creating and Solving Problems

### Multiplying 1-Digit Numbers

Groups objects and counts by 1s

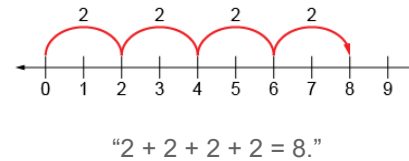


Groups objects and skip-counts

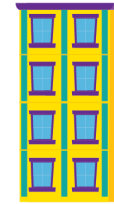


"2, 4, 6, 8"

Uses repeated addition



Models using multiplicative thinking

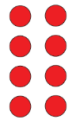


"4 rows of 2 is 8."

### Observations/Documentation

Understands relationship between operations

"I can think of  $2 + 2 + 2 + 2 = 8$  as 4 groups of 2."



Uses multiplication symbol

" $4 \times 2 = 8$ "

Multiplies fluently (e.g., uses properties of multiplication)

" $4 \times 2 = 8$   
 $2 \times 4 = 8$ "

Creates and solves problems involving equal groups

$4 \times 2 = 8$

"There are 4 bicycles in the shed.  
How many wheels are there altogether?"

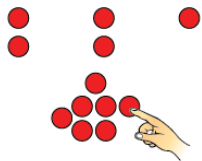
### Observations/Documentation

# Activity 31 Assessment

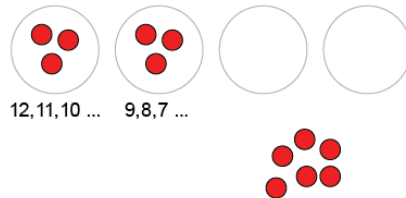
## Creating and Solving Problems

### Dividing 1-Digit Numbers

Models using equal sharing

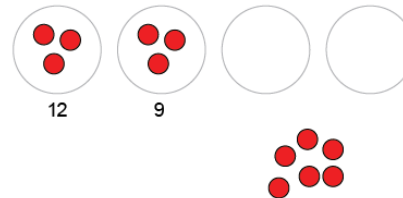


Models using equal grouping, counting by 1s

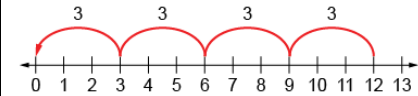


"I know 3 go in each group."

Models using equal grouping, skip-counting backward



Uses repeated subtraction



"4 jumps of 3 backward is the same as  $12 - 3 - 3 - 3 - 3 = 0$ ."

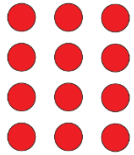
### Observations/Documentation

# Activity 31 Assessment

## Creating and Solving Problems

### Dividing 1-Digit Numbers (con't)

Models using multiplicative thinking,  
and uses division symbol

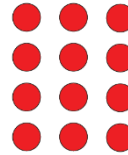


"12 divided into groups of 3 is  
4 groups  
 $12 \div 3 = 4$ ."

Divides fluently

"I know  $12 \div 4 = 3$ ,  
so  $12 \div 3 = 4$ ."

Creates and solves problems  
involving equal sharing and grouping



"There are 12 wheels  
on tricycles in the shed.  
How many tricycles are there?"

Understands relationships among  
operations

"I know  $12 - 3 - 3 - 3 - 3 = 0$ ,  
so I also know that  $12 \div 3 = 4$ .  
I also know that  $4 \times 3 = 12$ "

### Observations/Documentation