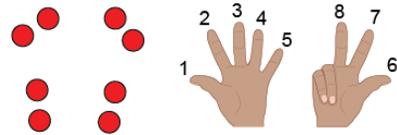


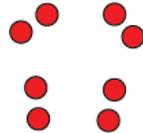
Activity 23 Assessment Consolidation

Multiplying 1-Digit Numbers

Groups objects and counts by 1s

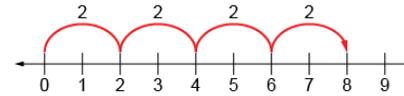


Groups objects and skip-counts



"2, 4, 6, 8"

Uses repeated addition



"2 + 2 + 2 + 2 = 8."

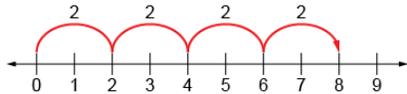
Models using multiplicative thinking



"4 rows of 2 is 8."

Observations/Documentation

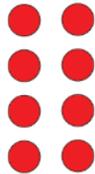
Understands relationship between operations



"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

$4 \times 2 = 8$

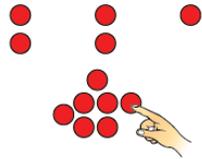
"There are 4 bicycles in the shed. How many wheels are there altogether?"

Observations/Documentation

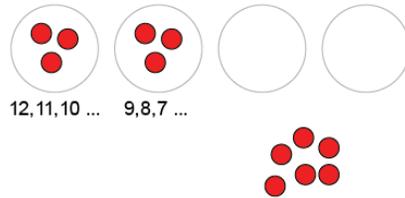
Activity 23 Assessment Consolidation

Dividing 1-Digit Numbers

Models using equal sharing

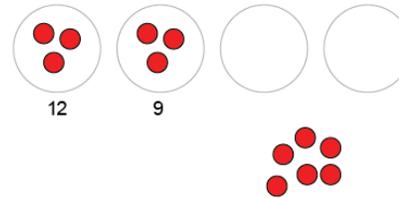


Models using equal grouping, counting by 1s

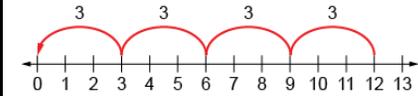


"I know 3 go in each group."

Models using equal grouping, skip-counting backward



Uses repeated subtraction



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

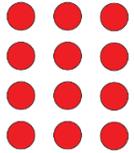
Observations/Documentation

Activity 23 Assessment

Consolidation

Dividing 1-Digit Numbers (con't)

Models using multiplicative thinking, and uses division symbol

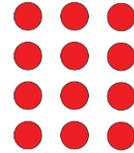


“12 divided into groups of 3 is
4 groups
 $12 \div 3 = 4$.”

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