

Activity 30 Assessment

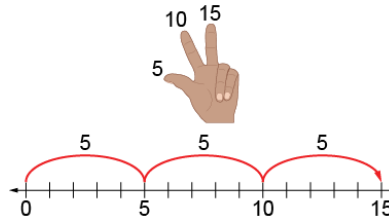
Multiplying and Dividing Larger Numbers

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 3×5 also equals 15."

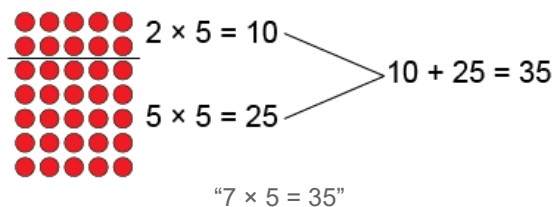
Observations/Documentation

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
$\times 5$	$\times 5$	$\times 5$	$\times 5$	$\times 5$
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 2×5 , or 10 fingers."

Fluently multiplies and divides

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

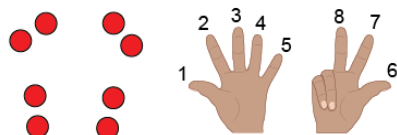
Observations/Documentation

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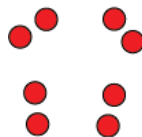
Multiplying and Dividing Larger Numbers

Multiplying 1-Digit Numbers

Groups objects and counts by 1s

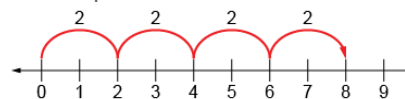


Groups objects and skip-counts



"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