Activity 30 Assessment
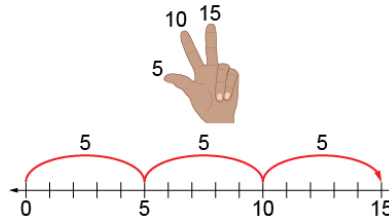## Multiplying and Dividing Larger Numbers

Developing Fluency with Multiplication and Division

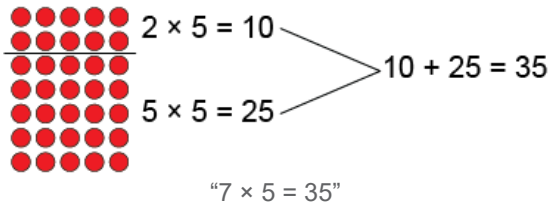| Models with concrete materials and counts by 1s	Uses skip-counting forward and backward	Works flexibly with numbers (e.g., uses repeated addition or subtraction, familiar facts, commutative property)
		"5 + 5 + 5 = 15 I know 2 × 5 = 10 and one more group of 5 is 15, so 3 × 5 = 15. I know 5 × 3 = 15, 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)	Fluently multiplies and divides
$2 \times 5 = 10$ $5 \times 5 = 25$ $10 + 25 = 35$ "7 × 5 = 35"		"I just know that 7 × 5 = 35."

Table:

1	2	3	4	5
× 5	× 5	× 5	× 5	× 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."

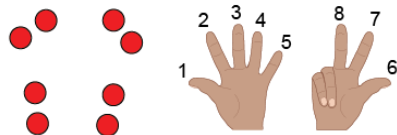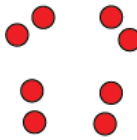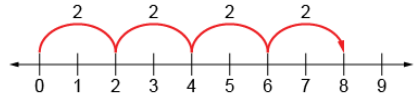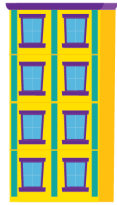### Observations/Documentation

Multiplying 1-Digit Numbers

Groups objects and counts by 1s	Groups objects and skip-counts	Uses repeated addition	Models using multiplicative thinking
	\n\n"2, 4, 6, 8"	\n\n"2 + 2 + 2 + 2 = 8."	\n\n"4 rows of 2 is 8."

Observations/Documentation

Understands relationship between operations	Uses multiplication symbol	Multiplies fluently (e.g., uses properties of multiplication)	Creates and solves problems involving equal groups
"I can think of 2 + 2 + 2 + 2 = 8 as 4 groups of 2."\n\n	"4 × 2 = 8"	"4 × 2 = 8\n2 × 4 = 8"	4 × 2 = 8\n\n"There are 4 bicycles in the shed. How many wheels are there altogether?"

Observations/Documentation