Multiplying Groups of 10

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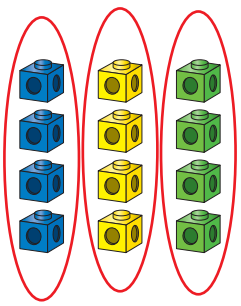
Each of these models helps show the relationship between these two multiplication equations.

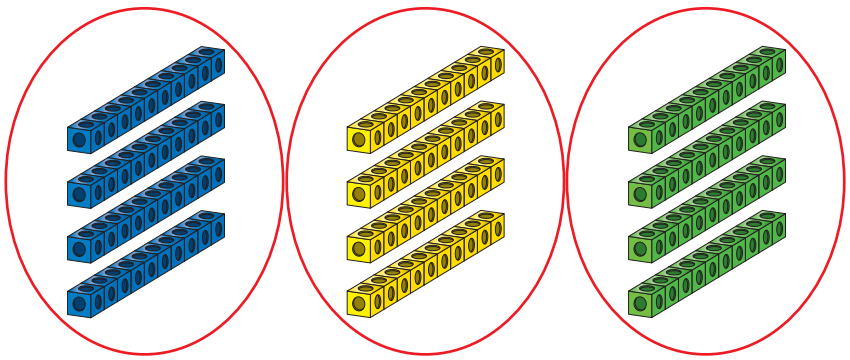
$$3 \times 4 = 12$$

$$3 \times 40 = 120$$

Cubes

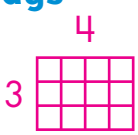


3 groups of 4 cubes

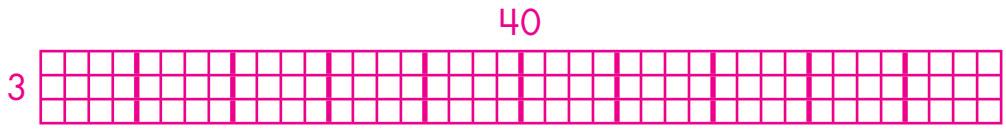


3 groups of 40 cubes

Arrays



a 3 by 4 array



a 3 by 40 array

Skip Counting Patterns

This pattern of multiples increases by 4.

Multiples of 4: 4 8 (12) 16 20 24 28 32 36 40 . . .

This pattern of multiples increases by 4 tens.

Multiples of 40: 40 80 (120) 160 200 240 280 320 360 400 . . .

Multiplying Groups of 10

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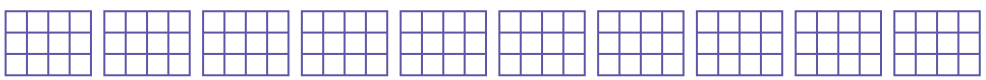
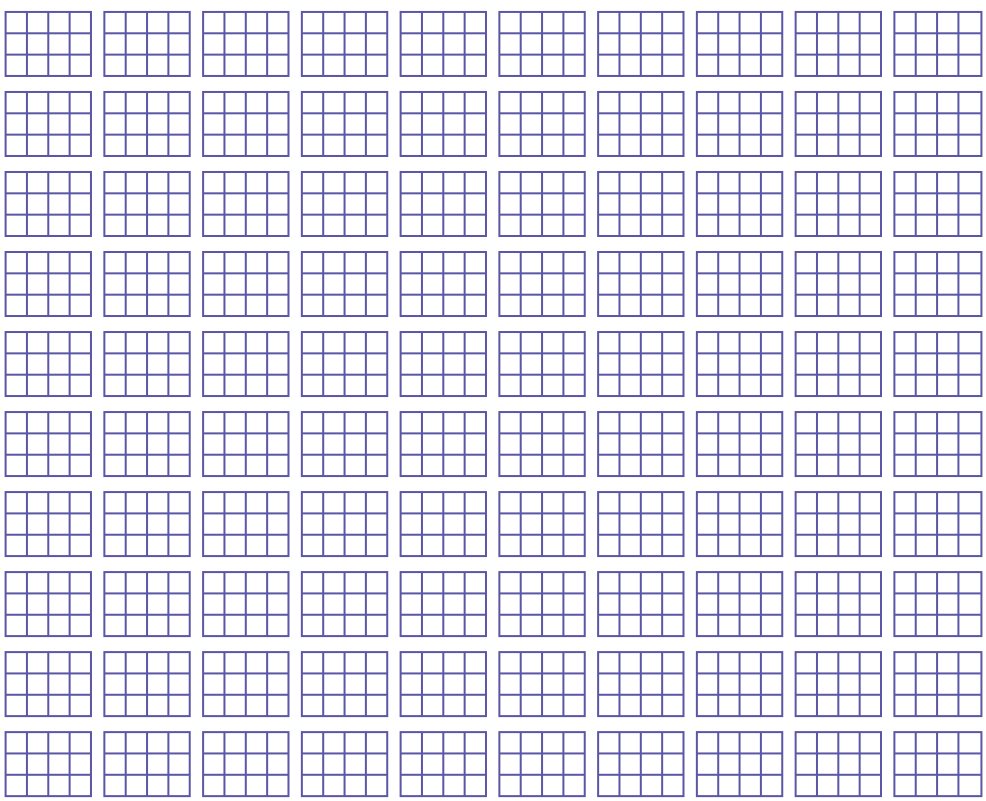
Consider the relationship among these three equations.

$3 \times 4 = 12$

$3 \times 40 = 120$

$30 \times 40 = 1{,}200$

$3 \times 4 = 12$	 $3 \times 4 = 12$
$3 \times 40 = 120$	 $(3 \times 4) \times 10 = 12 \times 10$
$30 \times 40 = 1{,}200$	 $(3 \times 4) \times (10 \times 10) = 12 \times 100$

Solve these related problems.

$5 \times 7 =$ _____ 5×70 _____ $50 \times 70 =$ _____