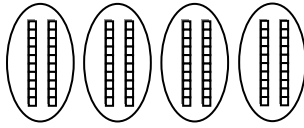


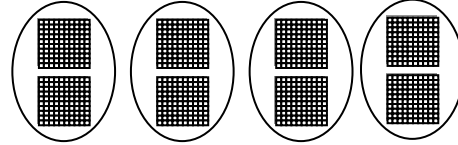
NS6-20: Multiples of 10

To multiply 4×20 , Allen makes 4 groups containing 2 tens blocks ($20 = 2$ tens).



$$\begin{aligned} 4 \times 20 &= 4 \times 2 \text{ tens} \\ &= 8 \text{ tens} \\ &= 80 \end{aligned}$$

To multiply 4×200 , Allen makes 4 groups containing 2 hundreds blocks ($200 = 2$ hundreds).



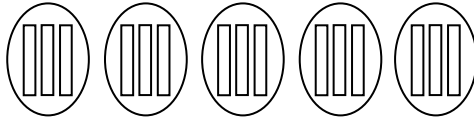
$$\begin{aligned} 4 \times 200 &= 4 \times 2 \text{ hundreds} \\ &= 8 \text{ hundreds} \\ &= 800 \end{aligned}$$

Allen notices a pattern:

$$\begin{aligned} 4 \times 2 &= 8 \\ 4 \times 20 &= 80 \\ 4 \times 200 &= 800 \end{aligned}$$

1. Draw a model for each multiplication statement, then calculate the answer. The first one is done.

a) 5×30



$$5 \times 30 = 5 \times \underline{3} \text{ tens} = \underline{15} \text{ tens} = \underline{150}$$

b) 3×40

$$3 \times 40 = 3 \times \underline{\quad} \text{ tens} = \underline{\quad} \text{ tens} = \underline{\quad}$$

2. Regroup to find the answer.

a) $3 \times 60 = 3 \times \underline{\quad} \text{ tens} = \underline{\quad} \text{ tens} = \underline{\quad}$

b) $6 \times 50 = 6 \times \underline{\quad} \text{ tens} = \underline{\quad} \text{ tens} = \underline{\quad}$

c) $4 \times 50 = 4 \times \underline{\quad} \text{ tens} = \underline{\quad} \text{ tens} = \underline{\quad}$

d) $5 \times 40 = 5 \times \underline{\quad} \text{ tens} = \underline{\quad} \text{ tens} = \underline{\quad}$

3. Complete the pattern by multiplying.

a) $5 \times 3 = \underline{\quad}$	b) $6 \times 1 = \underline{\quad}$	c) $3 \times 4 = \underline{\quad}$	d) $4 \times 5 = \underline{\quad}$
$5 \times 30 = \underline{\quad}$	$6 \times 10 = \underline{\quad}$	$3 \times 40 = \underline{\quad}$	$4 \times 50 = \underline{\quad}$
$5 \times 300 = \underline{\quad}$	$6 \times 100 = \underline{\quad}$	$3 \times 400 = \underline{\quad}$	$4 \times 500 = \underline{\quad}$

4. Multiply.

a) $7 \times 30 = \underline{\quad}$	b) $30 \times 5 = \underline{\quad}$	c) $3 \times 40 = \underline{\quad}$	d) $80 \times 3 = \underline{\quad}$
e) $4 \times 400 = \underline{\quad}$	f) $500 \times 8 = \underline{\quad}$	g) $5 \times 80 = \underline{\quad}$	h) $300 \times 6 = \underline{\quad}$
i) $3 \times 900 = \underline{\quad}$	j) $700 \times 6 = \underline{\quad}$	k) $8 \times 20 = \underline{\quad}$	l) $700 \times 3 = \underline{\quad}$



5. Draw a base ten model (using cubes to represent thousands) to show: $7 \times 1\,000 = 7\,000$.

6. Knowing that $6 \times 3 = 18$, how can you use this fact to multiply $6 \times 3\,000$? Explain.