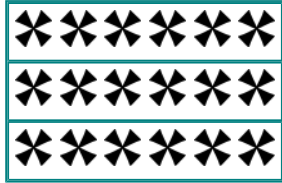


# Multiplication as an Array

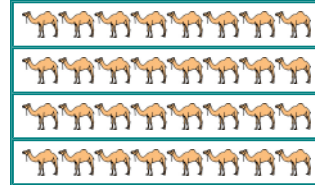
An **array** is an orderly arrangement of things in rows and columns. When things are neatly aligned in an array, we can think of the rows as groups, so an array still pictures multiplication as repeated addition.



3 rows, 6 crosses in each row.

$$6 + 6 + 6$$

$$3 \times 6 = 18$$



4 rows, 8 camels in each row.

$$8 + 8 + 8 + 8$$

$$4 \times 8 = 32$$

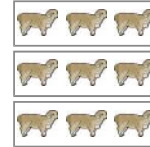
1. Fill in the missing numbers.



a. \_\_\_\_\_ rows, \_\_\_\_\_ carrots in each row.

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ carrots}$$



b. \_\_\_\_\_ rows, \_\_\_\_\_ rams in each row.

$$\underline{\quad} + \underline{\quad} + \underline{\quad}$$

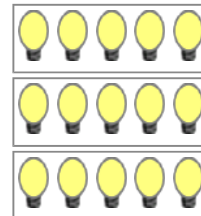
$$\underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ rams}$$



c. \_\_\_\_\_ rows, \_\_\_\_\_ bear in each row.

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ bears}$$



d. \_\_\_\_\_ rows, \_\_\_\_\_ bulbs in each row.

$$\underline{\quad} + \underline{\quad} + \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ bulbs}$$