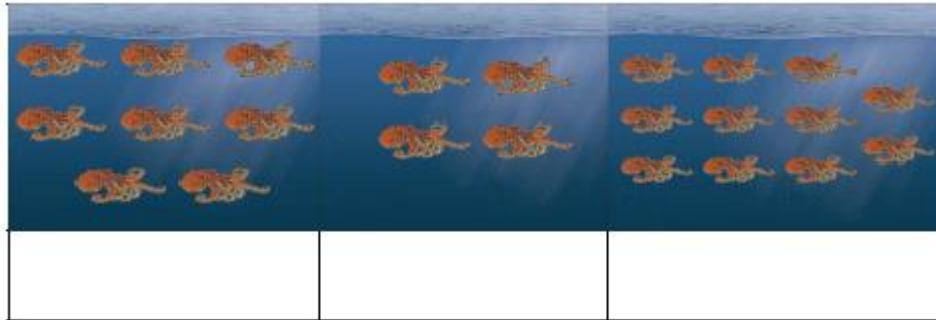


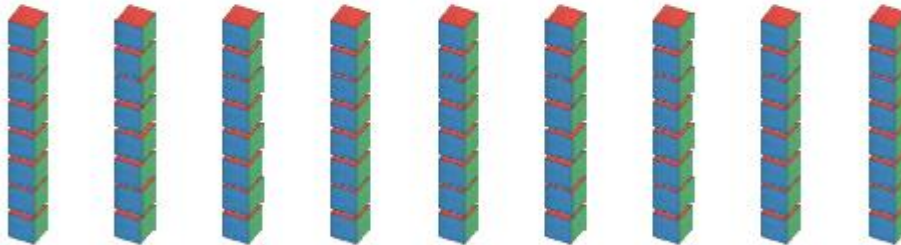
# Multiplying by 8

## Practise

- 1) How many tentacles are there in each tank? Write the calculation you used to find the total.



- 2) How many cubes are there altogether? Complete the statement and write the calculation.



There are \_\_\_\_ columns of \_\_\_\_ cubes.

\_\_\_\_  $\times$  \_\_\_\_ = \_\_\_\_

- 3) The tables in Miss Humphrey's classroom seat 3 children. Miss Humphrey needs 8 tables for her class. How many children are in Miss Humphrey's class?

## Reason

- 1) Niall says, "If  $6 \times 4 = 24$ , I can work out  $12 \times 8$  by doubling 24 as each number in the calculation has been doubled."

Is Niall correct? Explain your reasons.




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- 2) Niall and Anna have cut eight pieces of ribbon, each 9cm long. Which calculations could show the total length of the ribbons? Explain your reasons.

$9 \times 8$	
$4 \times 8$ + $4 \times 8$	
$9 \times 5$ + $8 + 8 + 8 + 8$	
$9 \times 4 \times 2$	

## Problem Solve

- 1) Anna is investigating patterns in the multiples of eight.

Half of 16  $\rightarrow$  8 (even), half of 8  $\rightarrow$  4 (even)

Half of 24  $\rightarrow$  12 (even), half of 12  $\rightarrow$  6 (even)

Half of 32  $\rightarrow$  16 (even), half of 16  $\rightarrow$  8 (even)

Continue Anna's pattern. What do you notice?



Use what you have found to work out which of these numbers are multiples of eight. Circle your answers and explain how you know.

50	88	70	104
100	128	64	98

- 2) Anna has written some facts about multiples of eight in this table:

$1 \times 8 = 8$	$2 \times 8 = 16$	$\_\_\_ \times 8 = 32$	$8 \times \_\_\_ = \_\_\_$

Can you help Anna complete the last two facts in her table?

What pattern do you notice? Can you make a table with the same pattern starting with  $3 \times 8 = 24$ ?