

# Using derived facts to multiply and divide mentally

## Worksheet

Mr Ward



# Warm up - Speedy Tables



Challenge: how many can you do in 3 minutes?

×	5		7	2		10	6		8	12	1	4
3		9			27							
6		18						66				
4					36							
8								88				



Using derived facts to multiply and divide



**Have a go!**

**Choose a representation**



**In the athletes village,  
each apartment has eight  
athletes living in it.**

**How many athletes are  
there in 240 apartment?**



# Talk Task - Independent work

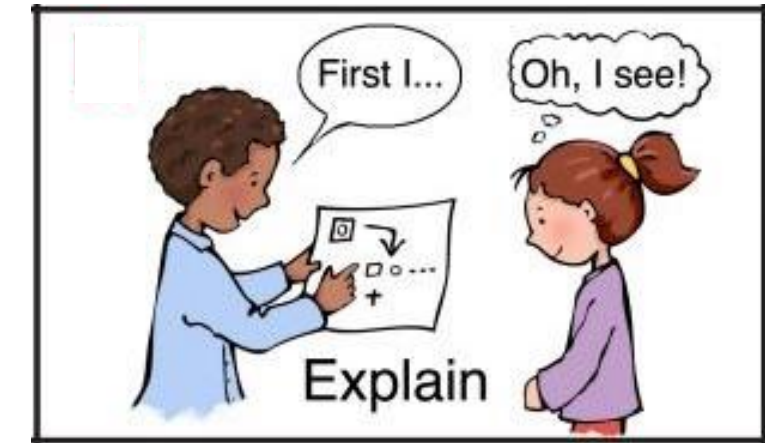
To calculate mentally using derived facts

## Multiplication problems

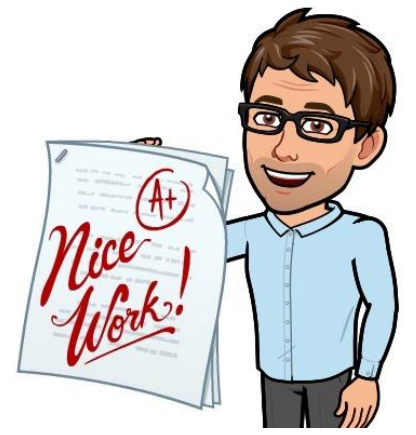
Represent each problem with an area model.

Record the steps of the strategy on an empty number line.

- 1) There are six athletes in each race and 26 races. How many athletes in total?
- 2) There are six athletes living in each apartment. How many athletes in 320 apartments?
- 3) There are six athletes living in each apartment. How many athletes in 834 apartments?



# Representing mental strategies



1. Complete the calculations using different representations to show your strategies
2. Write a word problems based on a maths story for each calculation.

- **Cuisenaire rods**
- **Array models**
- **Dienes**
- **Empty number line**
- **Marked number line**
- **Abstract number sentence**



$$430 \times 8$$

$$280 \times 7$$

$$320 \times 9$$

$$63 \times 70$$



# Challenge Slide

## Multiplication Madness!

Complete the calculations and write a word problem for each one using maths vocabulary



$$\begin{array}{r} 43 \\ \times 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 340 \\ \times 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 280 \\ \times 7 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \times 60 \\ \hline \\ \hline \\ \hline \end{array}$$

