Use mental strategies to multiply by 5, 20, 6, 4 and 8.

23 x 10 = 230

How can we use 23 × 10 = 230 to find the answer to 23 × 5?

We can multiply numbers by 5 by **multiplying by 10, then halving**.

23 x 5 = 115

23 x 20 = 460

What do we already know? How does that help?

We can **double the answer to 23 x 10**.

23 x 19 = 437

What do we know? How does that help?

We can **subtract 23 from the answer to 23 x 20**.

Year 5

Use mental strategies to multiply by 5, 20, 6, 4 and 8.

Calculate 23 x 3.

69

23 x 6 = 138

How can we use 23 × 3 = 69 to calculate the answer to 23 × 6?

Double!

So one way to multiply a number by 6 is to multiply by **3**, and then by **2**.

We are using a **pair of factors** of 6.

Use mental strategies to multiply by 5, 20, 6, 4 and 8.

To multiply by 4 double twice
To find 23 × 4 double 23, then double the answer.
Double 23 is 46.
Double 46 is 92.
23 × 4 = 92

We can use repeated **doubling** to multiply by 4 and by 8!
Try **23 x 4**, then
13 x 8

To multiply by 8 double three times
To find 13 × 8. Double 13, then double the answer twice more!
Double 13 is 26.
Doble 26 is 52.
Double 52 is 104.
13 × 8 = 104