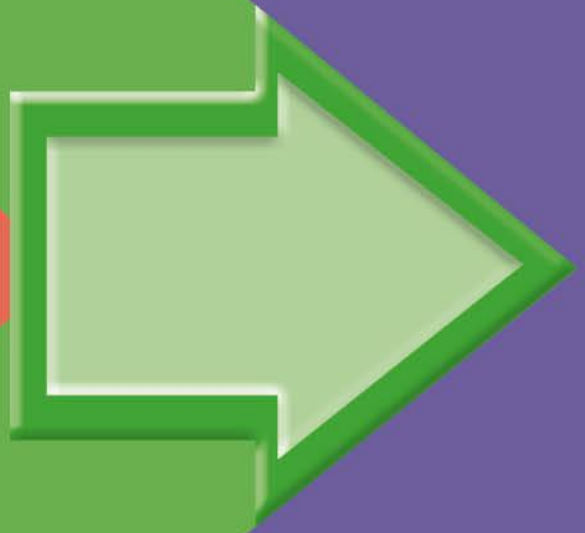
EFFICIENT MULTIPLICATION



White Rose Maths

GET READY

White Rose Maths

1) $6 \times 1 =$ $6 \times 2 =$ $6 \times 3 =$

$6 \times 10 =$ $6 \times 20 =$ $6 \times 30 =$

2) $60 - 12 =$

$150 - 10 =$

3) Double these numbers

6 12 24

4) Halve these numbers

28 280

1) $6 \times 1 = 6$ $6 \times 2 = 12$ $6 \times 3 = 18$

$6 \times 10 = 60$ $6 \times 20 = 120$ $6 \times 30 = 180$

2) $60 - 12 = 48$

$150 - 10 = 140$

3) Double these numbers

6 12 12 24 24 48

4) Halve these numbers

28 14 280 140

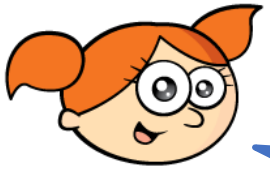
LET'S LEARN

White Rose Maths

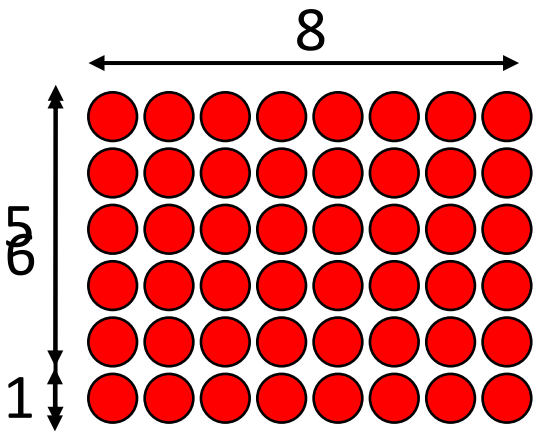
$6 \times 8 = \boxed{48}$

What methods could you use to calculate 6×8 if you did not know the answer?

Have a think



I partitioned 6 into 5 and 1



$5 \times 8 = 40$

$1 \times 8 = 8$

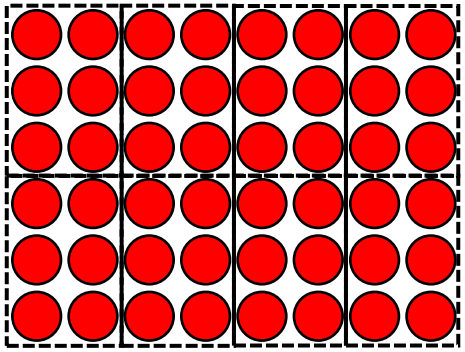
$$6 \times 8 = \boxed{48}$$

What methods could you use to calculate 6×8 if you did not know the answer?

$6 \times 8 = 2 \times 3 \times 8$

Double 24 is 48

2×3



$3 \times 8 = 24$

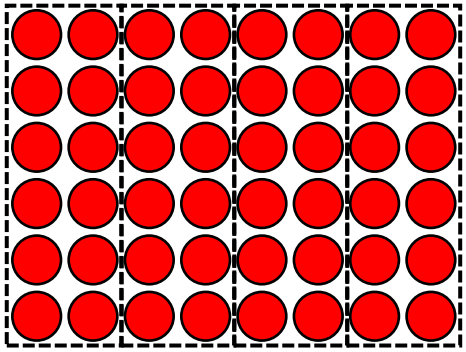
$3 \times 8 = 24$

$6 \times 8 = \boxed{48}$

What methods could you use to calculate 6×8 if you did not know the answer?

$6 \times 8 = 6 \times 2 \times 4$

6×2



$6 \times 2 \times 4$

$12 \times 4 = 48$

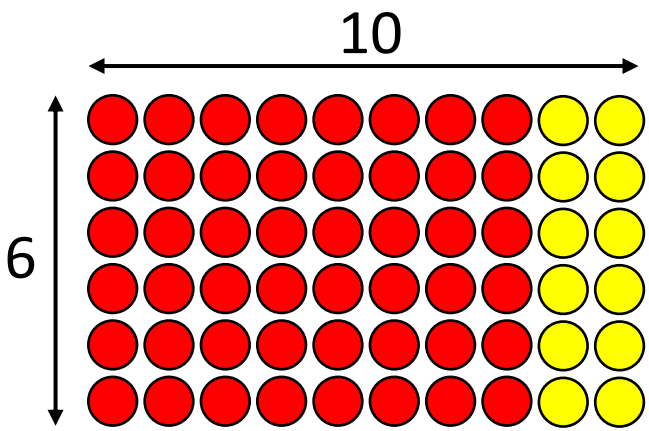
$6 \times 2 \times 4$

$24 \times 2 = 48$

$6 \times 8 = \boxed{48}$

What methods could you use to calculate 6×8 if you did not know the answer?

I did 6×10 then subtracted 12



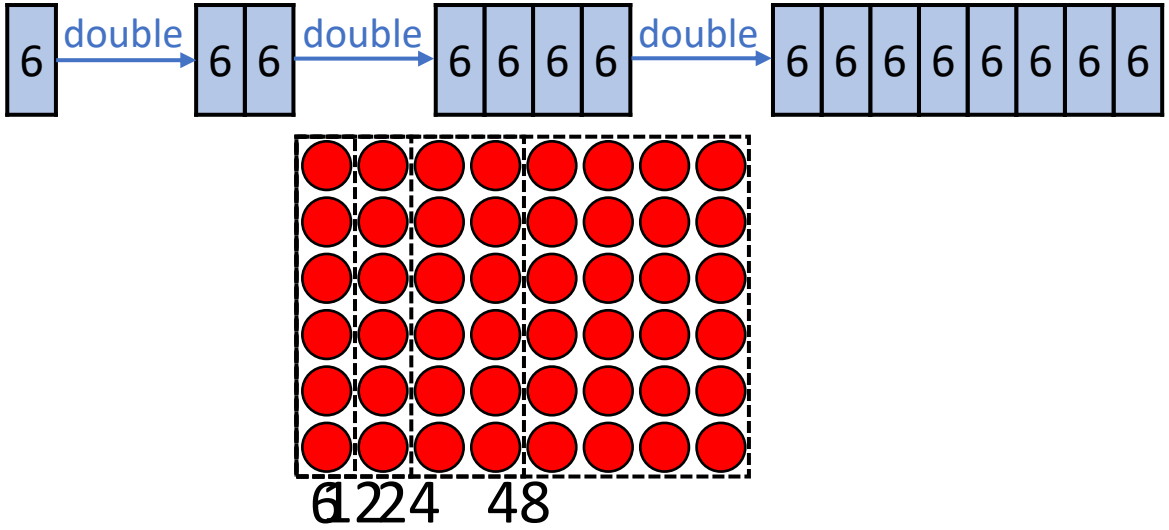
$6 \times 10 = 60$

$60 - 12 = 48$

$6 \times 8 = \boxed{48}$

What methods could you use to calculate 6×8 if you did not know the answer?

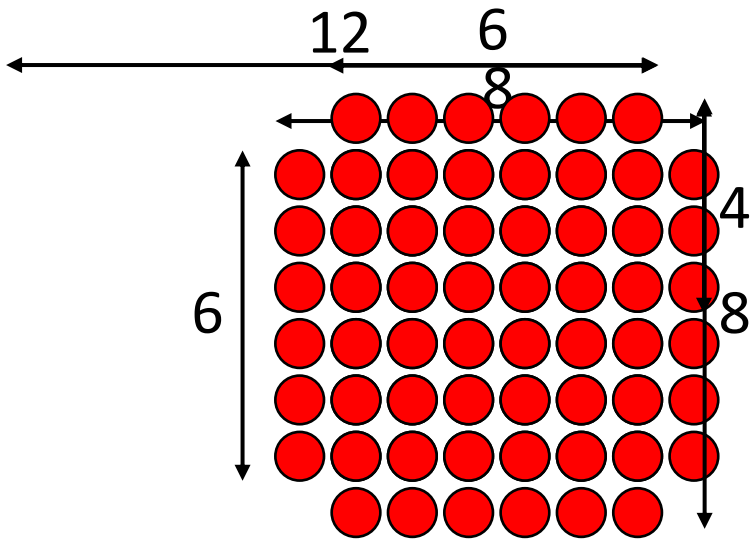
Double, then double, then double again



$6 \times 8 = \boxed{48}$

What methods could you use to calculate 6×8 if you did not know the answer?

If you double one factor and halve one factor the product stays the same



6×8

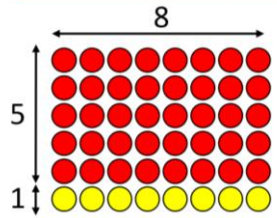
12×4

24×2

$$5 \times 28 = \boxed{140}$$

Have a think

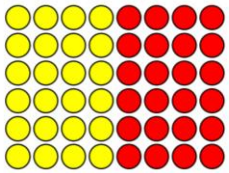
I partitioned 6 into 5 and 1



$5 \times 8 = 40$

$1 \times 8 = 8$

$6 \times 8 = 6 \times 2 \times 4$



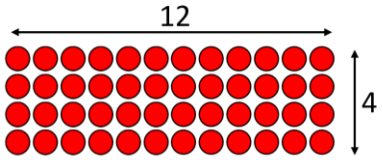
$6 \times 2 \times 4$

$12 \times 4 = 48$

$6 \times 2 \times 4$

24×2

If you double one factor and halve one factor the product stays the same

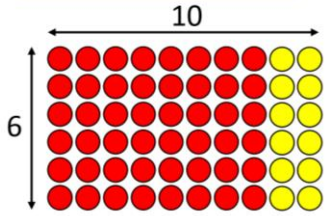


6×8

12×4

24×2

I did 6×10 then subtracted 12

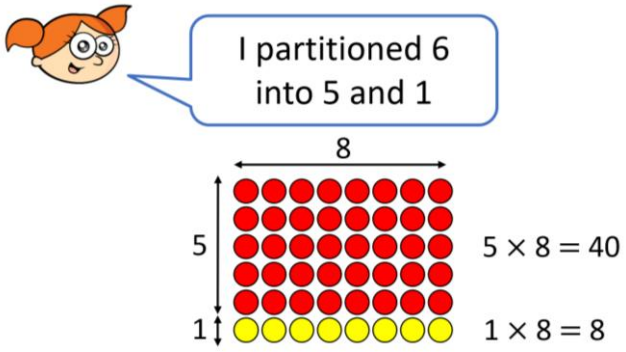


$6 \times 10 = 60$

$60 - 12 = 48$

$$5 \times 28 = \boxed{140}$$

$$20 \quad 8$$



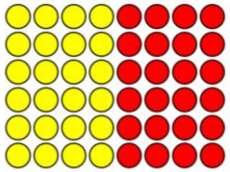
$$5 \times 20 = 100$$

$$5 \times 8 = 40$$

$$100 + 40 = 140$$

$$5 \times 28 = \boxed{140}$$

$6 \times 8 = 6 \times 2 \times 4$



$6 \times 2 \times 4$

$12 \times 4 = 48$

$6 \times 2 \times 4$

24×2

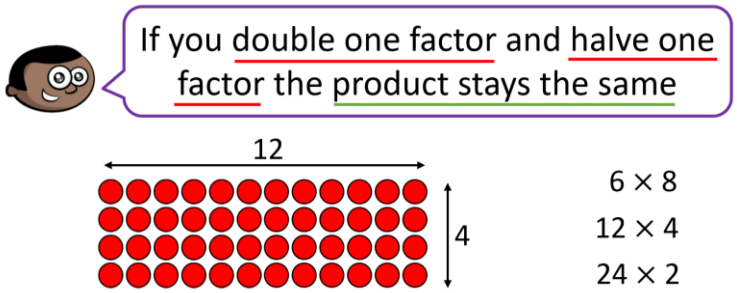
$5 \times 2 \times 14$

$10 \times 14 = 140$

$5 \times 7 \times 4$

$20 \times 7 = 140$

$$5 \times 28 = \boxed{140}$$



5×28

10×14

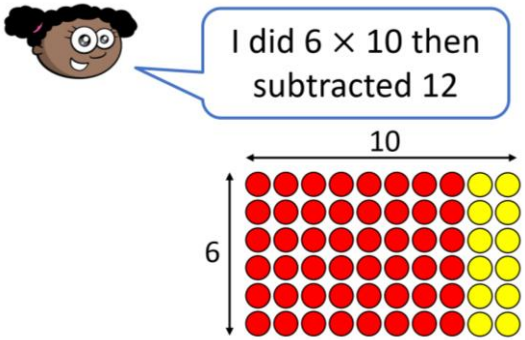
6×15

÷ 3 ( ) × 3

2×30

Have a think

$$5 \times 28 = \boxed{140}$$



$6 \times 10 = 60$
$60 - 12 = 48$

$5 \times 30 = 150$

$5 \times 2 = 10$

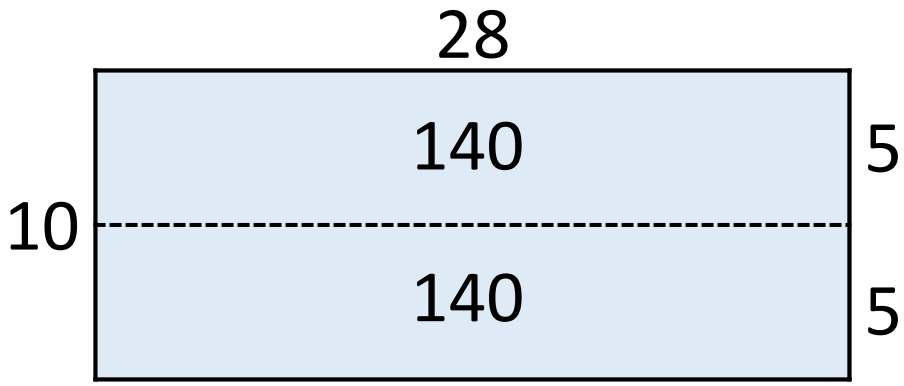
$150 - 10 = 140$

$$5 \times 28 = \boxed{140}$$

I also know that to multiply by 5 you could multiply by 10 first and then half

$28 \times 10 = 280$

$280 \div 2 = 140$



YOUR TURN

Have a go at the rest of the worksheet

White Rose Maths