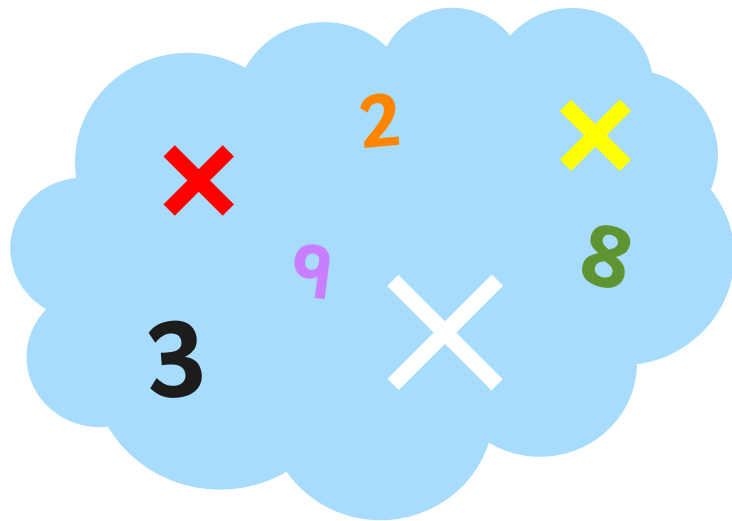


# Multiplying Numbers Mentally

Drawing Upon Known Facts



# Multiply by Partitioning 10s

$$21 \times 7 =$$

Partition  $21 = 10 + 10 + 1$

(x7) (x7) (x7)

$$21 \times 7 = 70 + 70 + 7 = 147$$

Split the larger number into tens and ones.

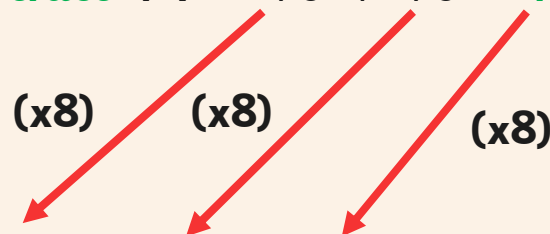
Remember to add up all the calculations for the answer!

# Multiply by Partitioning 10s and Subtract

Round a number to the nearest 10 to make it easier to partition.

$$19 \times 8 =$$

Partition and **subtract**  $19 = 10 + 10 - 1$



$$19 \times 8 = 80 + 80 - 8 = 152$$

Remember to include the amount that needs to be subtracted to get back to the original number!

# Multiply by Complex Partitioning

You can use your multiplication knowledge of up to the 12x table to answer much larger calculations.

$$18 \times 12 =$$

$$18 = 12 + 6$$

(x12)

(x12)

$$18 \times 12 = 144 + 72 = 216$$

Just partition the larger number into values you can already calculate mentally!

