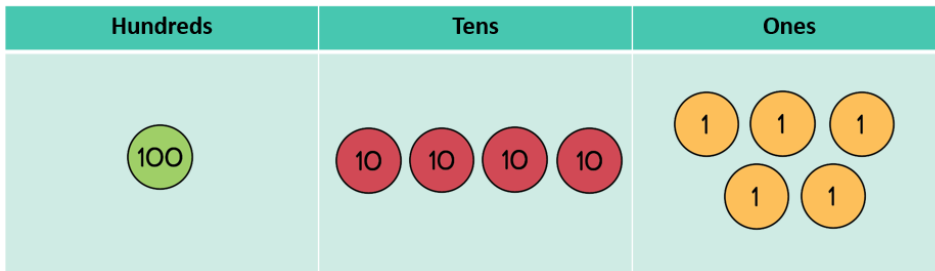


WORKED EXAMPLE



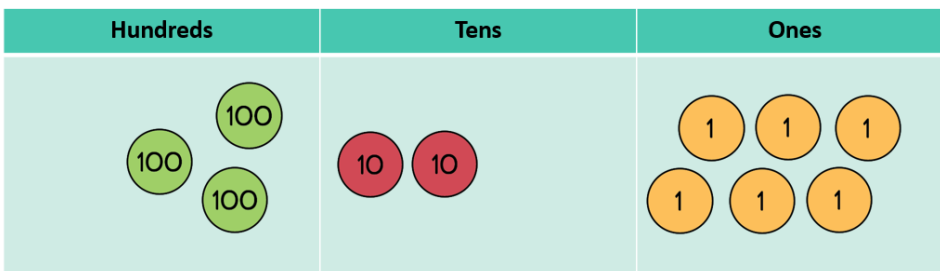
$$\begin{array}{r}
 145 \\
 \times 3 \\
 \hline
 435 \\
 \hline
 11
 \end{array}$$

I have noticed that *the counters show 1 hundred, 4 tens and 5 ones. That is 145.*
 I know that *the calculation is 145 multiplied by 3, so I need 3 lots of 145.*
 I know that *3 lots of 5 ones is 15 ones so I will have to record the 5 ones and regroup 10 ones for 1 ten and show this in the tens column of my calculation so I don't forget it.*
 I know that *3 lots of 4 tens is 12 tens and I will have to add the regrouped ten to give 13 tens. I can record 3 tens and will have to regroup 10 tens for 1 hundred.*
 I know that *3 lots of 1 hundred is 3 hundreds and I will have to add the regrouped hundred to give 4 hundreds. 145 x 3 = 435.*

ones tens hundreds multiplied regroup

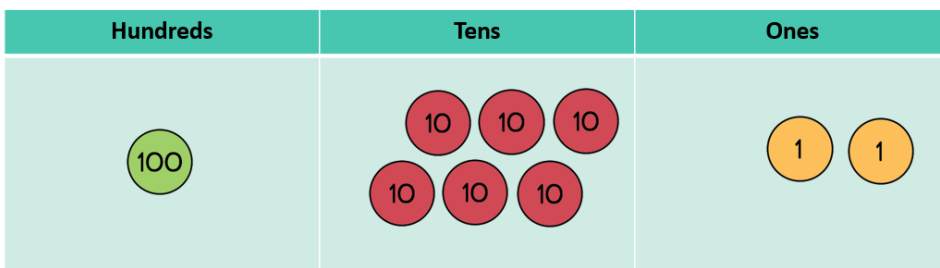
REHEARSE

Complete the calculations thinking carefully about the regroups.



$$\begin{array}{r}
 326 \\
 \times 2 \\
 \hline
 \\
 \hline
 \hline
 \end{array}$$

I had to regroup _____ ones into _____ ten and _____ ones.



$$\begin{array}{r}
 162 \\
 \times 4 \\
 \hline
 \\
 \hline
 \hline
 \end{array}$$

I had to regroup _____ tens into _____ hundreds and _____ tens.

APPLY AND EXPLORE

Complete the calculations explaining each regroup aloud as you do it.

$$\begin{array}{r} 231 \\ \times 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 214 \\ \times 7 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 403 \\ \times 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 810 \\ \times 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 127 \\ \times 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 210 \\ \times 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 321 \\ \times 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 132 \\ \times 5 \\ \hline \\ \hline \end{array}$$

How many calculations have exactly one regroup?

APPLY AND EXPLORE

Choose two numbers to multiply.

How close can you get to 1,000?

124	7	204
6	126	8
144	5	167