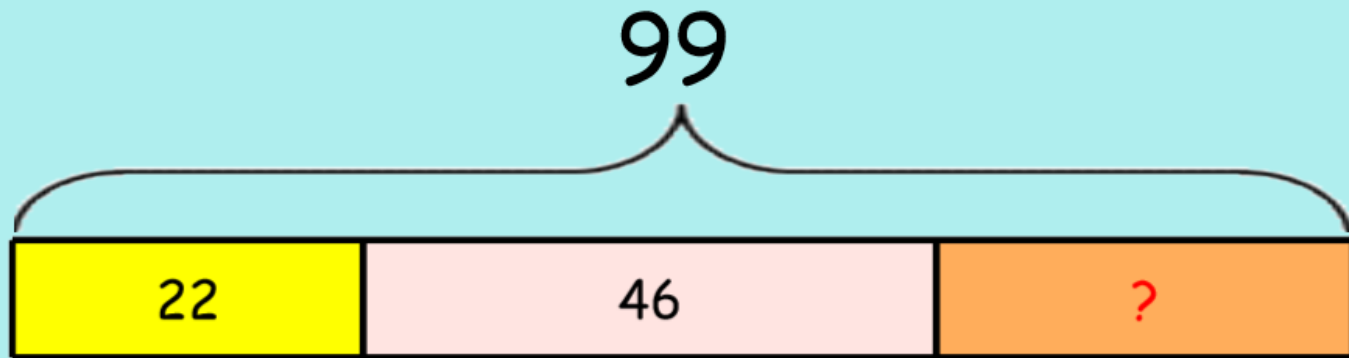


take away
decrease
subtract
minus

difference
less

Subtraction



C → P → A



Focus Question



No exchanging

Find the difference between the number of boys and the number of girls.



Boys

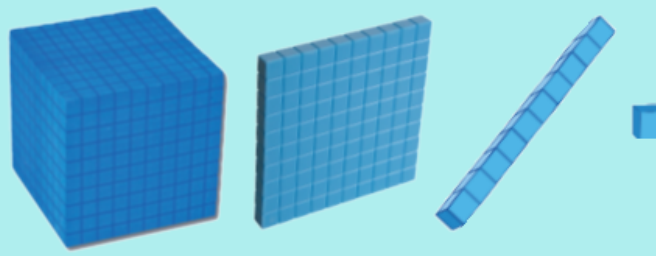
358



Girls

128

Let's Learn



1 Find the difference between 358 and 128.

boys

358

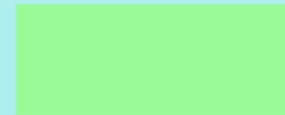
girls

128

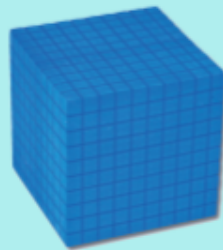
← Difference →

When we subtract numbers we get the difference.

$$358 - 128 =$$

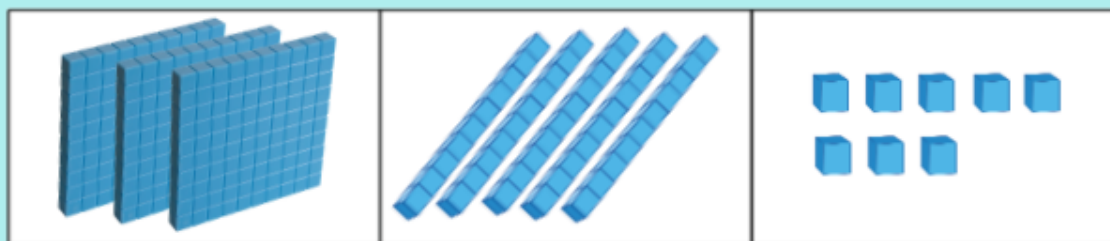


Let's Learn



Use Dienes blocks

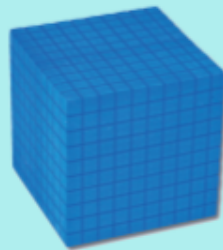
358



$$\begin{array}{r} 358 \\ - 128 \\ \hline \end{array}$$

The difference between 358 and 128 is _____

Let's Learn



Use Dienes blocks

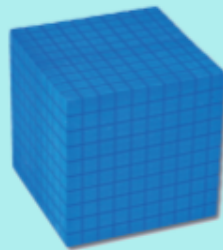
358



$$\begin{array}{r} 358 \\ - 128 \\ \hline 0 \end{array}$$

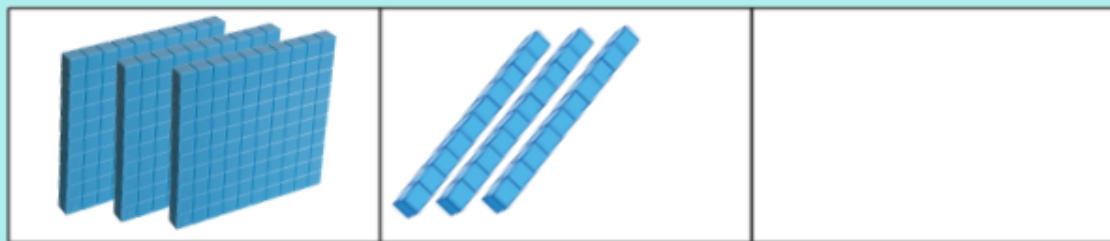
The difference between 358 and 128 is _____

Let's Learn



Use Dienes blocks

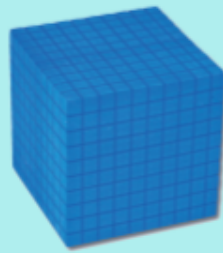
358



$$\begin{array}{r} 358 \\ - 128 \\ \hline 230 \end{array}$$

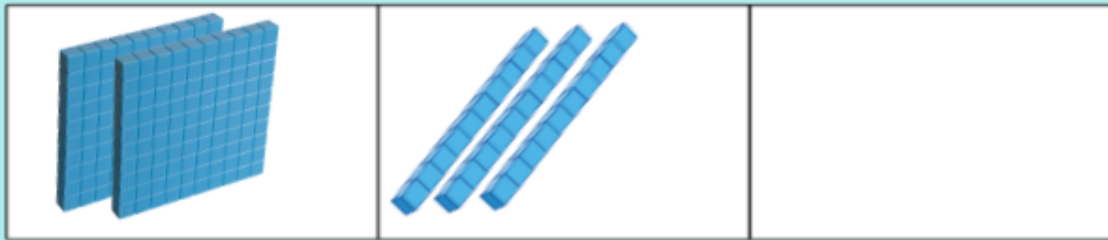
The difference between 358 and 128 is _____

Let's Learn



Use Dienes blocks

358



$$\begin{array}{r} 358 \\ - 128 \\ \hline 230 \end{array}$$

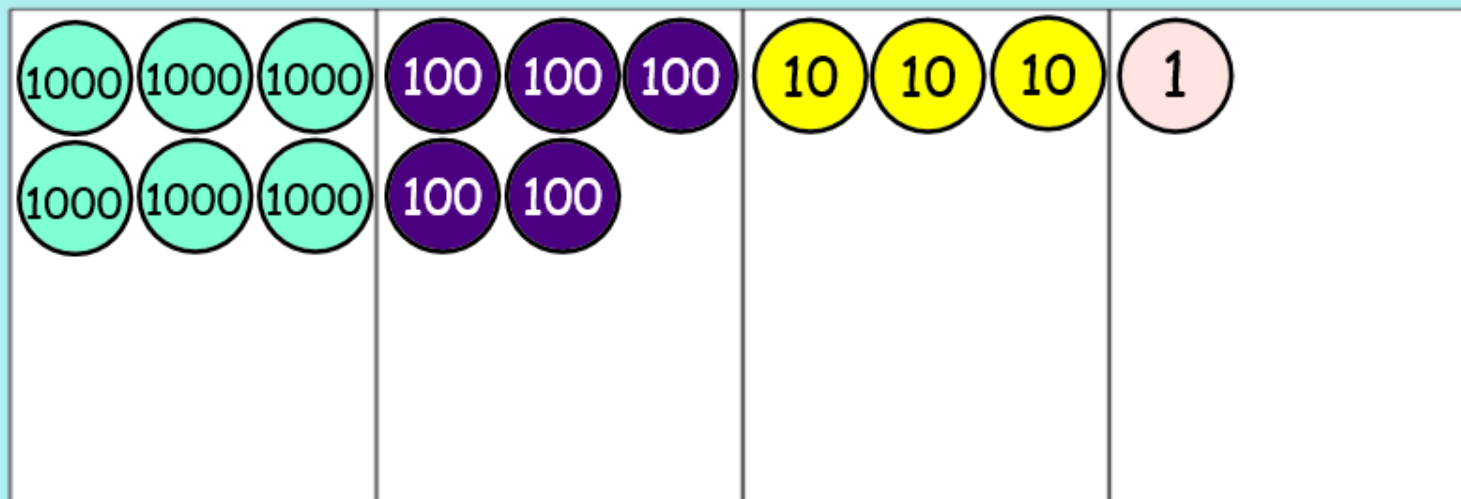
The difference between 358 and 128 is 230

With exchanging

Let's Learn



subtract 2385 from 6531



$$\begin{array}{r} 6531 \\ - 2385 \\ \hline \\ \hline \end{array}$$

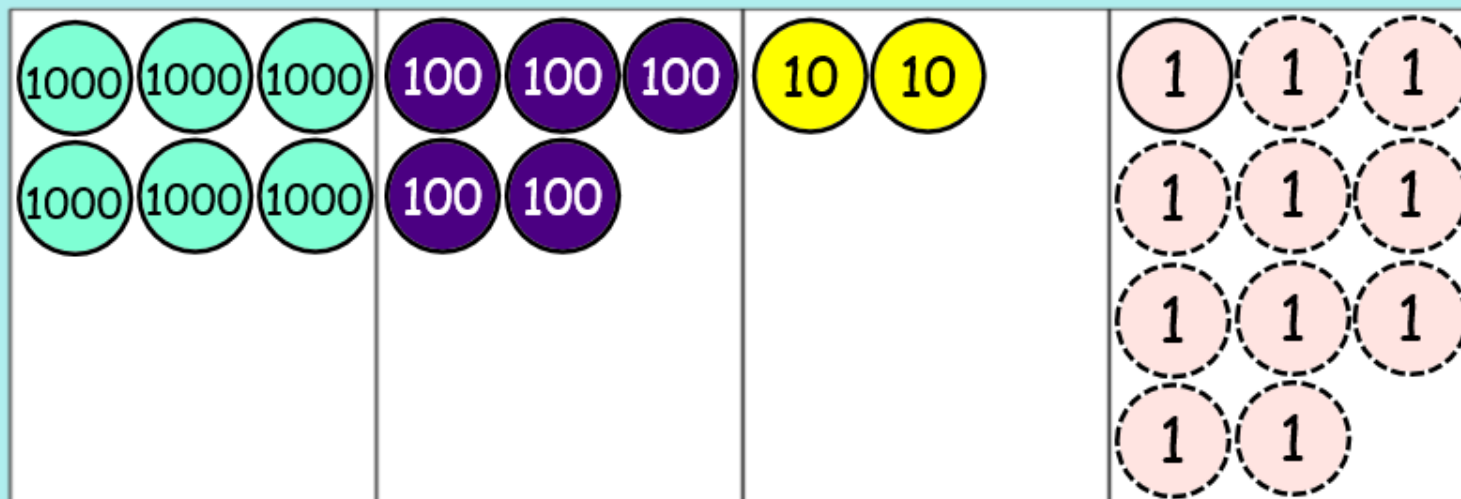
6 5 3 1

There aren't enough ones!

Let's Learn



subtract 2385 from 6531



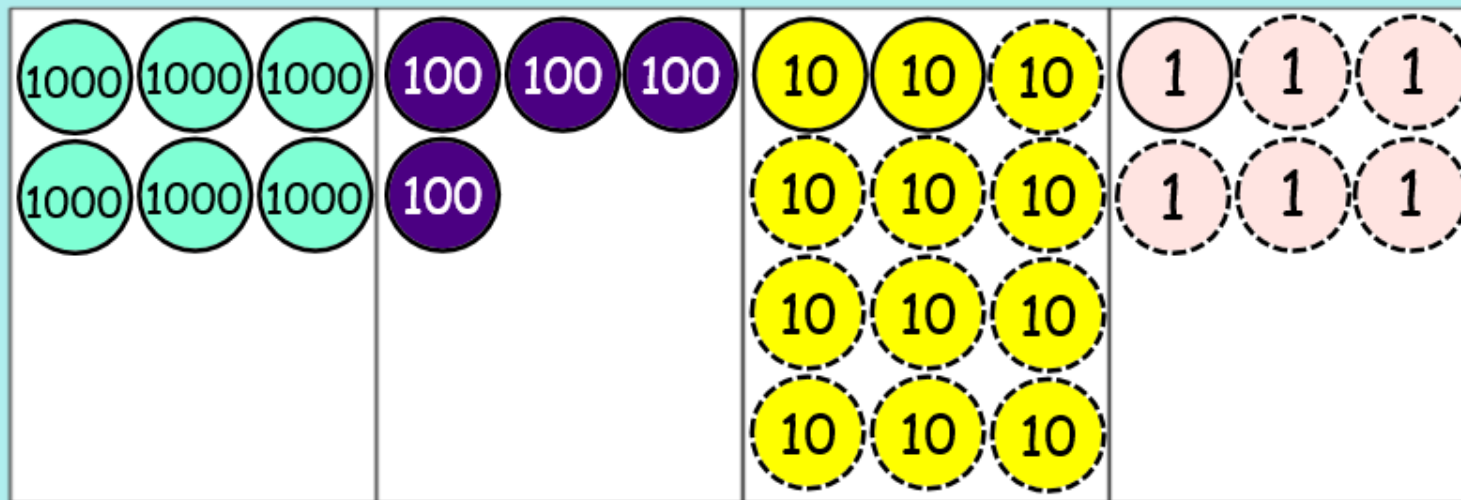
$$\begin{array}{r} 65\overset{2}{3}\overset{1}{1} \\ - 2385 \\ \hline \\ \hline \end{array}$$

Let's exchange a 10 for ten 1s

Let's Learn



subtract 2385 from 6531



$$\begin{array}{r}
 6531 \\
 - 2385 \\
 \hline
 4146
 \end{array}$$

Let's exchange a 100 for ten 10s

4146 adults signed up.

Let's Learn

Abstract

$$\begin{array}{r} 6 \ 5 \ 3 \ 1 \\ - \ 2 \ 3 \ 8 \ 5 \\ \hline \\ \hline \end{array}$$

Step 1

Let's Learn

$$\begin{array}{r} 65\overset{2}{\cancel{3}}\overset{1}{1} \\ - 2385 \\ \hline \end{array}$$

Step 2

Let's Learn

$$\begin{array}{r} 6 4 12 1 \\ \cancel{5} \cancel{3} 1 \\ - 2 3 8 5 \\ \hline \\ \hline \end{array}$$

Step 3

Let's Learn

$$\begin{array}{r} 4 12 1 \\ 6 \cancel{5} \cancel{3} 1 \\ - 2 3 8 5 \\ \hline \\ \hline \end{array}$$

Step 4

WOOHOO!



Enrichment: double and triple exchanging

Focus Question

$$\begin{array}{r} \overset{5}{\cancel{6}} 0 0^1 3 \\ - 3 4 7 5 \\ \hline \\ \hline \end{array}$$



George started his calculation like this but his teacher told him to stop and look at it again. What mistake has he made?

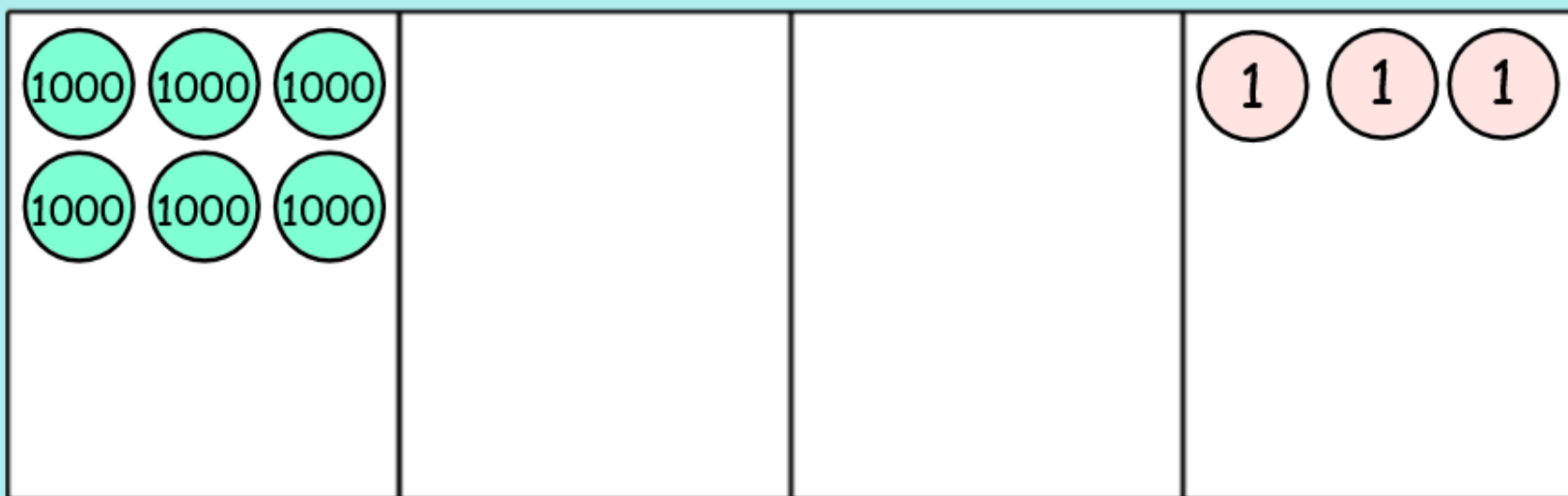
Let's Learn

1000

100

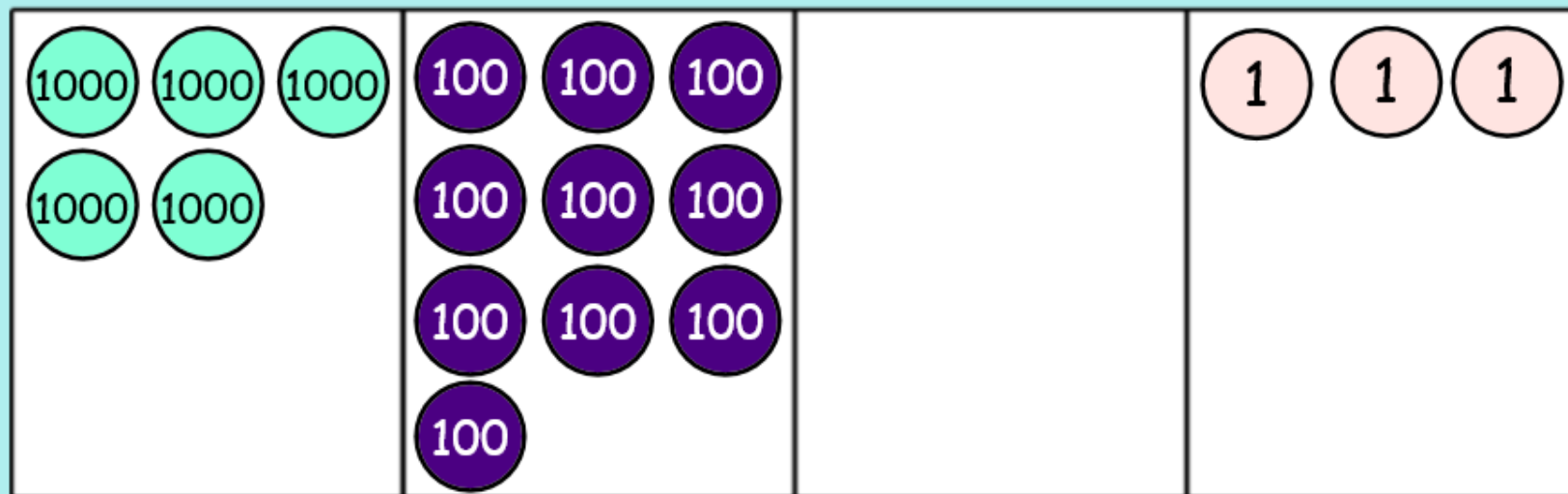
10

1



$$\begin{array}{r} 6003 \\ - 3475 \\ \hline \\ \hline \end{array}$$

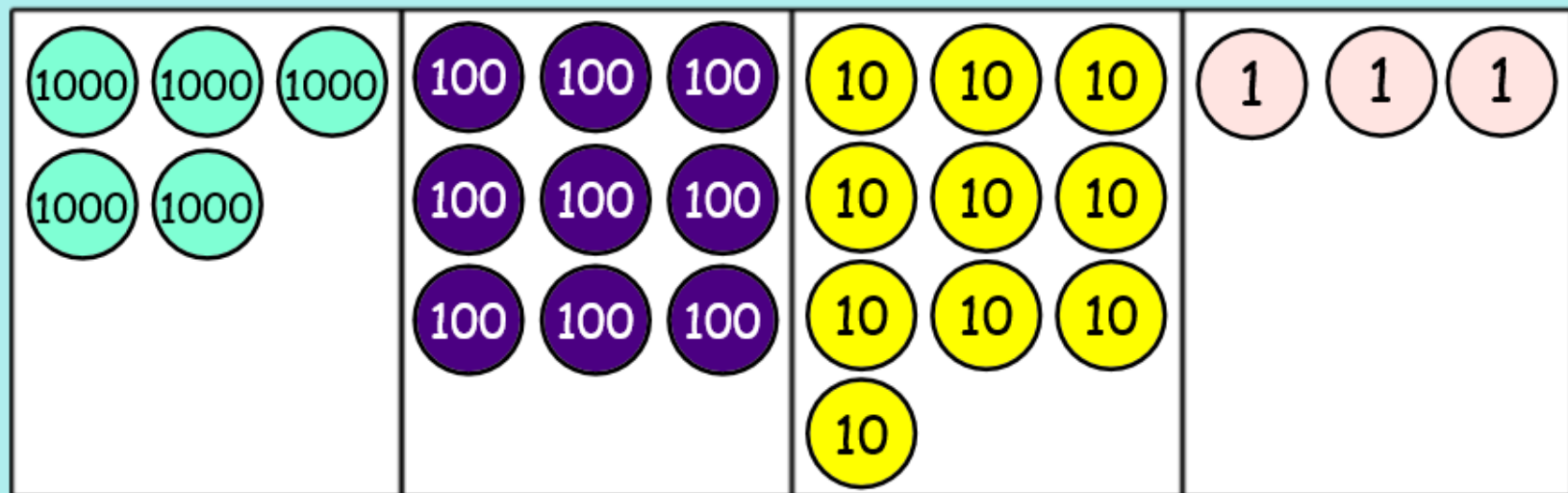
Let's Learn



$$\begin{array}{r}
 \overset{5}{\cancel{6}} \overset{1}{0} 0 3 \\
 - 3 4 7 5 \\
 \hline
 \hline
 \end{array}$$

exchanging 1 thousand
for 1000 ones would
mean a lot of ones!!

Let's Learn

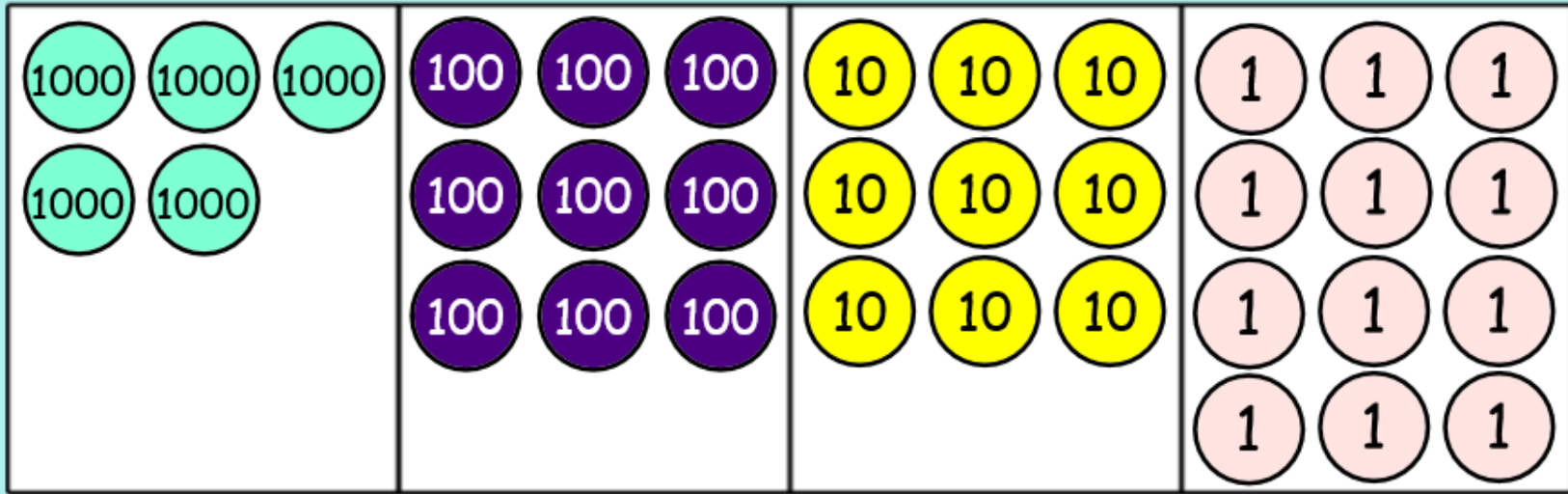


$$\begin{array}{r}
 \overset{5}{\cancel{6}} \overset{1}{\cancel{0}} \overset{9}{0} \overset{1}{0} 3 \\
 - 3475 \\
 \hline \\
 \hline
 \end{array}$$

Nearly there...

Let's Learn

1000 100 10 1



$$\begin{array}{r}
 \overset{5}{\cancel{6}} \overset{1^9}{\cancel{0}} \overset{1^9}{\cancel{0}} \overset{1}{3} \\
 - 3475 \\
 \hline \\
 \hline
 \end{array}$$

1

Finally, you can
complete the
calculation

Advanced method...

$$\begin{array}{r} \overset{5}{\cancel{6}} \overset{19}{\cancel{0}} \overset{19}{\cancel{0}} \overset{1}{3} \\ - 3475 \\ \hline 2528 \end{array}$$

take 4 from
both numbers →

$$\begin{array}{r} 5999 \\ - 3471 \\ \hline 2528 \end{array}$$

✓ No regrouping!

✗ Harder to understand conceptually.