

## 2<sup>nd</sup> Grade Mission 5 Notes

**More-** means to add

**Less-** means to subtract or take away

$$157 + 10 = 167$$

$$157 - 10 = 147$$

$$167 = 157 + 10$$

$$147 = 157 - 10$$

When adding 10 more or subtracting 10 less, only the tens place will change, everything else stays the same.

$$+ 10 + 10 + 10 + 10$$

135, 145, 155, 165, 175

$$- 10 - 10 - 10 - 10$$

282, 272, 262, 252, 242

100 more than 157 is 257

100 less than 157 is 57.

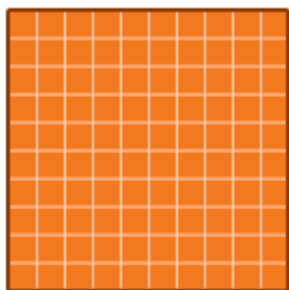
When adding 100 more or subtracting 100 less, only the hundreds place will change, everything else stays the same.

$$+ 100 + 100 + 100 + 100$$

182, 282, 382, 482, 582

$$- 100 - 100 - 100 - 100$$

535, 435, 335, 235, 135



Hundred



Ten



Ones

## Strategies you can use to Add

### Arrow Way

$$\begin{array}{r} +100 \\ 420 \longrightarrow 520 \end{array}$$

### Number Bond

$$\begin{array}{r} 420 + 100 = \\ \swarrow \quad \searrow \\ 400 \quad 20 \\ 500 + 20 = 520 \end{array}$$

### Place Value Chart

hundreds	tens	ones
<div style="display: flex; justify-content: space-between;"> <span>−</span> <span>+</span> </div>	<div style="display: flex; justify-content: space-between;"> <span>−</span> <span>+</span> </div>	<div style="display: flex; justify-content: space-between;"> <span>−</span> <span>+</span> </div>

$$280 + 230 = 510$$

$$280 \xrightarrow{+200} 480 \xrightarrow{+20} 500 \xrightarrow{+10} 510$$

We added 230 in all.

$$\begin{array}{r} -100 \qquad -10 \\ 570 \longrightarrow 470 \longrightarrow 460 \\ 100 + 10 = 110 \\ 570 - 110 = 460 \end{array}$$

$$430 + 180 = ?$$

$$430 + 180 = 610$$

### STEPS TO ADDING EASIER

1<sup>st</sup>- look for the number closest to the next hundred or friendly number (180)

2<sup>nd</sup>- think about which hundred or friendly number it is closest to (180 is closest to 200)

3<sup>rd</sup>- how much is needed to get to the next hundred or friendly number (180 + 20 = 200)

4<sup>th</sup>- now take what you need to get to the next hundred or friendly number from the other part

$$\begin{array}{r} 430 + 180 \\ \swarrow \quad \searrow \\ 410 \quad 20 \end{array}$$

5<sup>th</sup> - write the new addition problem (410 + 200)

6<sup>th</sup>- solve the problem (410 + 200 = 610 which is the same as 430 + 180 = 610)

## STEPS TO SUBTRACTING EASIER

1<sup>st</sup> - look for the number closest to the next hundred or friendly benchmark number (199)

2<sup>nd</sup> - think about which hundred or friendly number it is closest to (199 is closest to 200)

3<sup>rd</sup> - how much is needed to get to the next hundred or friendly number ( $199 + 1 = 200$ )

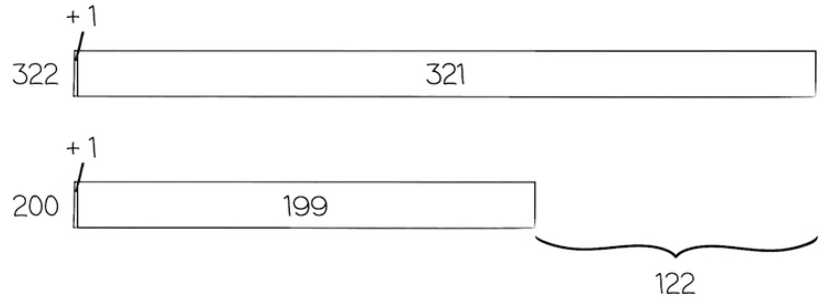
4<sup>th</sup> - now add the same amount to the other number/part ( $321 + 1 = 322$ )

5<sup>th</sup> - write the new subtraction problem ( $322 - 200$ )

6<sup>th</sup> - solve the problem ( $322 - 200 = 122$  which is the same as  $321 - 199 = 122$ )

$$321 - 199 = 122$$

$$322 - 200 = 122$$



## One Strategy to Solve Addition and Subtraction- Arrow Way

$$697 + 223 = ?$$

~~200~~   ~~20~~   ~~3~~

$$697 \xrightarrow{+3} 700 \xrightarrow{+200} 900 \xrightarrow{+20} 920$$

$$697 + 223 = 920$$

$$722 - 490 = ?$$

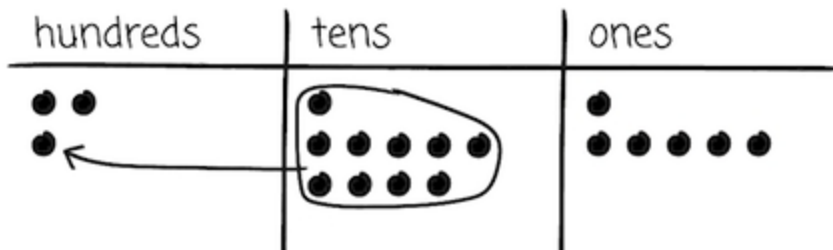
$$722 \xrightarrow{-500} 222 \xrightarrow{+10} 232$$

$$722 - 490 = \textcircled{232}$$

$$722 - 490 = \underline{232}$$

*We had to add 10 to the end of the arrow way, since we added 10 to 490.*

## One Strategy to Solve Addition - Place Value and Standard Algorithm



$$\begin{array}{r} 211 \\ + 95 \\ \hline 306 \end{array}$$

## One Strategy to Solve Addition- Take Apart

$$\begin{array}{c} 211 + 95 = 306 \\ \swarrow \downarrow \searrow \swarrow \searrow \\ 200 + 10 + 1 + 90 + 5 \end{array}$$

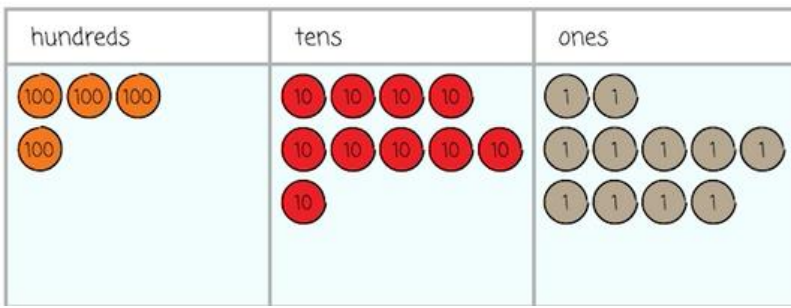
$$200 + 100 + 6 = 306$$

$$\begin{array}{c} 427 + 385 = 812 \\ \swarrow \downarrow \searrow \swarrow \searrow \\ 400 + 20 + 7 + 300 + 80 + 5 \end{array}$$

$$700 + 100 + 12 = 812$$

**Bundle-** when you have 10 of a number, you group them together and push it to the next place value.

**Unbundle-** when you take a number from a place value and make 10 of the lower number on the place value chart.

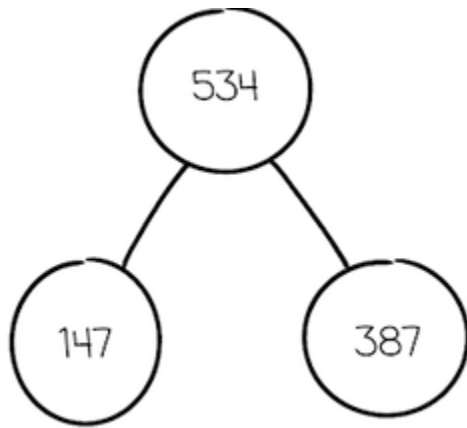


$$\begin{array}{r}
 \text{HTO} \\
 342 \\
 + 169 \\
 \hline
 \end{array}$$

When subtracting, always put the **whole** on the **place value chart**.

You can check subtraction with addition.

$$\begin{array}{r}
 12 \\
 4214 \\
 \cancel{534} \\
 - 147 \\
 \hline
 387
 \end{array}$$



$$\begin{array}{r}
 147 \\
 + 387 \\
 \hline
 534
 \end{array}$$

$$800 - 463 = ?$$

$$463 \xrightarrow{+7} 470 \xrightarrow{+30} 500 \xrightarrow{+300} 800$$

$$7 + 30 + 300 = 337$$

$$800 - 463 = 337$$