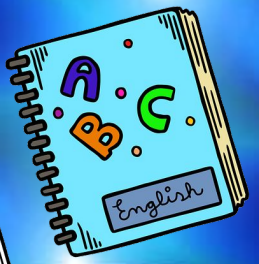
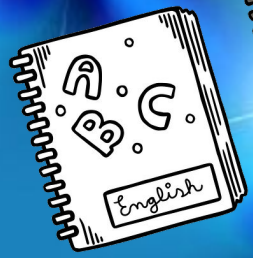
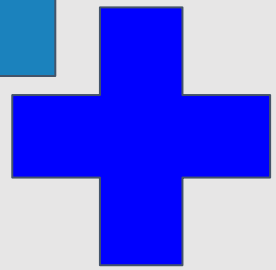
Lesson 2-3

Add Whole Numbers

BROADUS LEARNINGS



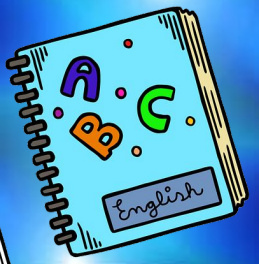


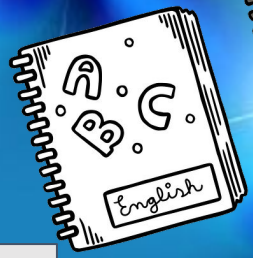


Objective:

Today, we will add numbers with and without regrouping using the standard algorithm.

BROADUS LEARNINGS

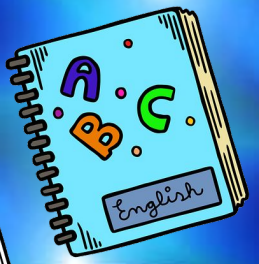


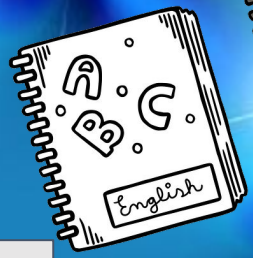


STANDARD:

Add and subtract multi-digit whole numbers up to and including 100,000 using the standard algorithm with place value understanding.

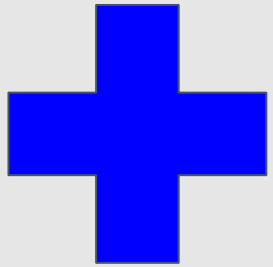
BROADUS LEARNINGS





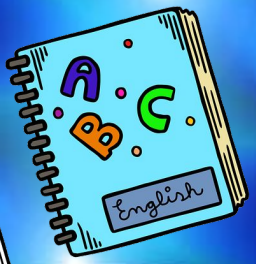
I CAN STATEMENT:

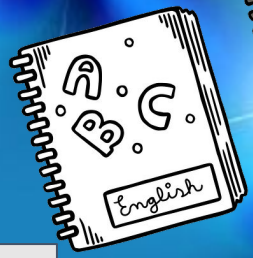
I can connect place-value concepts by using addition algorithms.



BROADUS LEARNINGS

ADD

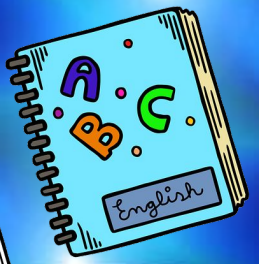


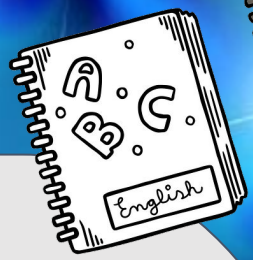


ESSENTIAL QUESTION:

How can you add whole numbers efficiently?

BROADUS LEARNINGS





In previous lessons we learned how to use mental math. Sometimes, the easiest way to add is to use the standard algorithm. When we use the standard algorithm, we simply line up the digits by place value and add, starting in the ones place, then tens, and so on!

BROADUS LEARNINGS

Use the standard algorithm to add. 313 + 641

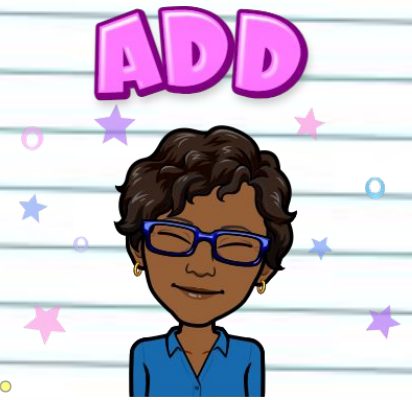
Hint: Line up the numbers based on place value and put the number with the greatest number of DIGITS on top.

H	T	O
6	4	1
+ 3	1	3
		4

1. Start adding with the ones place.

Use the standard algorithm to add. 313 + 641

Hint: Keep your digits lined up by place value, including the sum!



H T O

641

+ 313

54

2. Add the tens place.

BROADUS LEARNINGS

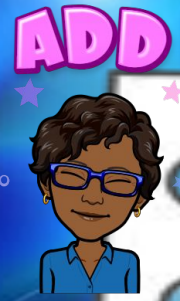
Use the standard algorithm to add. 313 + 641

Hint: Keep your digits lined up by place value, including the sum!

H	T	O
6	4	1
+ 3	1	3
9	5	4

3. Add the hundreds place.

BROADUS LEARNINGS



593 people attended a football game at Davie on Monday. On Friday, 220 people attended the game. How many total people attended the game on Monday and Friday?

Hint: Line up the numbers based on place value and put the number with the greatest number of DIGITS on top.

H	T	O
5	9	3
+ 2	2	0
		3

1. Start adding with the ones place.

3 ones + 0 ones = 3 ones

No regrouping needed because sum of digits in a place value is less than 9.

ADD

593 people attended a football game at Davie on Monday. On Friday, 220 people attended the game. How many total people attended the game on Monday and Friday?

Hint: Keep your digits lined up by place value, including the sum!

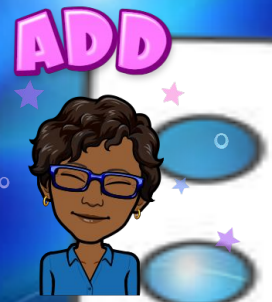
H	T	O
	1	
5	9	3
+ 2	2	0
	1	3

2. Add the **tens** place.

9 tens + 2 tens = 11 tens

Regroup: 11 tens = 1 hundred + 1 ten

BROADUS EARNINGS



593 people attended a football game at Davie on Monday. On Friday, 220 people attended the game. How many total people attended the game on Monday and Friday?

Hint: Keep your digits lined up by place value, including the sum!

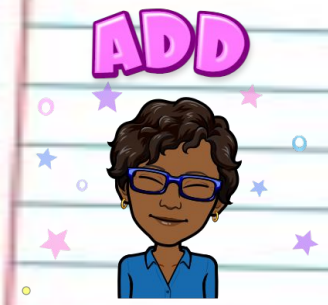
	H	T	O
	1		
	5	9	3
+	2	2	0
	8	1	3

3. Add the hundreds place.

1 hundred + 5 hundreds + 2 hundreds = 8 hundreds
No regrouping needed because sum of digits in a place value is less than 9.

BROADUS LEARNINGS

593 people attended a football game at Davie on Monday. On Friday, 220 people attended the game. How many total people attended the game on Monday and Friday?

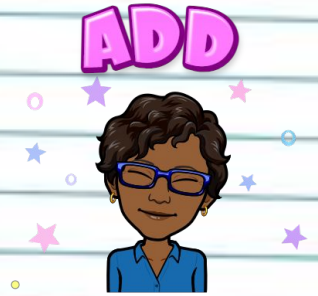


H	T	O
	1	
5	9	3
+ 2	2	0
8	1	3

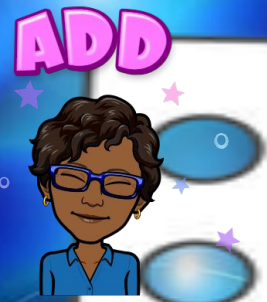
813 people attended the game on Monday and Friday.

Luis and his brother, Tony, decided to save money to pay for a new PS5 for their room. Luis deposited $246 in the bank last week, Tony deposited $192 in the bank two weeks ago. On yesterday, their dad deposited $357 into their account. ABOUT how much money did they save for the PS5?

H	T	O
2	4	6
1	9	2
+ 3	5	7



BROADUS LEARNINGS



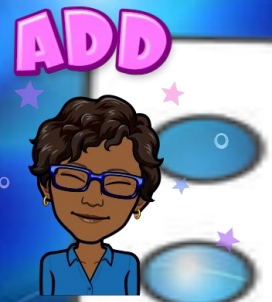
$246 $192 $357

One way to estimate would be to round to the nearest hundred and then add.

There are many ways to estimate!! How did you estimate?

$$\begin{array}{rcr} 246 & \rightarrow & 200 \\ 192 & \rightarrow & 200 \\ +357 & \rightarrow & +\ 400 \\ \hline & & 800 \end{array}$$

BROADUS LEARNINGS



$246 $192 $357

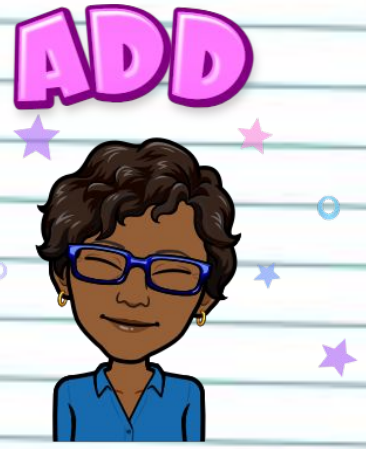
One way to estimate would be to round to the nearest hundred and then add.

There are many ways to estimate!! How did you estimate?

$$\begin{array}{r} 200 \\ 200 \\ +\ 400 \\ \hline 800 \end{array}$$

BROADUS LEARNINGS

Luis and his brother, Tony, decided to save money to pay for a new PS5 for their room. Luis deposited $246 in the bank last week, Tony deposited $192 in the bank two weeks ago. On yesterday, their dad deposited $357 into their account. ABOUT how much money did they save for the PS5? Use any strategy you like to determine the EXACT amount of money they had collected in all.



H	T	O
	1	
2	4	6
	1	9	2
+	3	5	7
		5

1. Start adding with the ones place.

6 ones + 2 ones + 7 ones = 15 ones

Regroup 15 ones = 1 ten + 5 ones.

ADD

H	T	O
	1	1
2	4	6
1	9	2
+ 3	5	7
9	5	

2. Add the **tens** place.

1 ten + 4 tens + 9 tens + 5 tens = 19 tens

Regroup: 19 tens = 1 hundred + 9 tens

BROADUS LEARNINGS

ADD

H	T	O
1	1	
2	4	6
1	9	2
+ 3	5	7
7	9	5

3. Add the **hundreds** place.

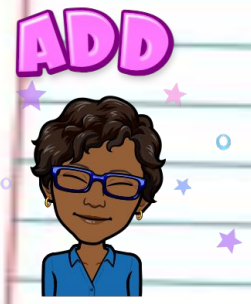
1 hundred + 2 hundreds + 1 hundred + 3 hundreds = 7 hundreds
No regrouping needed because sum of digits in a place value is less than 9.

BROADUS LEARNINGS

$246 $192 $357

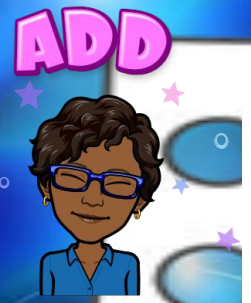
The exact amount is close to our estimate!

Do you think the brothers can buy their PS5 now?



$$
\begin{array}{rcr}
246 & \rightarrow & 200 \\
192 & \rightarrow & 200 \\
+357 & \rightarrow & +\ 400 \\
\hline
795 & \rightarrow & 800
\end{array}
$$

BROADUS LEARNINGS



Exit Ticket: Haleigh works at Dairy Queen. She worked 209 hours in August and 184 hours in July. How many total hours did she work during those two months?

Hint: Line up the numbers based on place value and put the number with the greatest number of DIGITS on top.

1. Start adding with the ones place.
2. Add the tens place.
3. Add the hundreds place.

Please remember to regroup if the sum of the digits in a place value is greater than 9.

BROADUS LEARNINGS

What's the most important thing to remember when adding using the standard algorithm? Think of how you will limit errors in your work?

BROADUS LEARNINGS

INDEPENDENT PRACTICE:

pg 47 5-7 partial sum strategy
8-10 standard algorithm

HOMEWORK:

finish independent practice

BROADUS LEARNINGS