

DESCRIPTIONS OF THE TABLES IN "K-5 Addition Packet.docx"

These are some tables to get you and your class started. The tables have several purposes:

- Practice addition using different representations and procedures.
- The tables show how different addition problems are related to each other.
- The tables can help move from “procedures without connections” to “procedures with connections”.
- Patterns in the tables can help students reason about addition, not just solve addition problems. (How is addition related to odd and even numbers, for example, or discussions of the commutative property of addition.)
- The missing addend tables help students understand the connection between addition and subtraction.

If students have not done these tables before, they should begin with the simple tables with no missing addends. (Tables are *not* listed in order of increasing complexity.) Even in the upper grades, let them start with simple tables to get used to this way of organizing their answers.

There are two-digit tables, three-digit tables, and decimal tables.

There is a blank table, which you can use to create your own exercises for your students. Or let the students choose the addends to adjust to the level of difficulty that they feel they need to work on.

The “missing addend” tables range from a fairly easy one to a rather challenging one. These are kind of like solving puzzles. They also provide a way to discuss the relationship between addition and subtraction.

We are interested in feedback on this method of teaching and practicing addition and subtraction. If you have questions, or comments, or if you try something in your classroom that you would like to share with the MC² community, please let us know:

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+	.73	.74	.75	.76	.77
1.25		1.99			
1.26					
1.27					
1.28					
1.29				2.05	

1. In your group, take turns filling in boxes in the addition table above. When it is your turn, you may choose which box you want to fill in.
2. Each student should fill in five boxes using the standard algorithm for addition. After that, you may find the answers in any way that you like, as long as the other students in your group agree with the answer.
3. How many sums in the table come out to exactly 2? Explain how two numbers which are not whole numbers can have a sum that is a whole number.
4. What other patterns do you see in the table?
5. Using the patterns in the table, find $1.30 + .77$. Then check your answer using the standard algorithm.

+		6		8	
5					14
				14	
7			14		
		14			
9	14				

1. This is an addition table, like the others you have done. But some of the addends are missing. What numbers can you figure out to fill in first?
2. How does subtraction help you find the missing numbers in this table?
3. Take turns filling in the missing numbers.
4. What patterns do you see in the table?

+	11		15		
			20		
7		20			
	20				
			26		30
13				30	

1. This is an addition table, like the others you have done. But some of the addends are missing. What numbers can you figure out to fill in first?
2. How does subtraction help you find the missing numbers in this table?
3. Take turns filling in the missing numbers.
4. Which numbers in this table are odd? Which ones are even? Can you explain the reason for this pattern?

+			150		
	341	351			
213		353		373	
				375	385
					387
	349	359			

1. This is an addition table, like the others you have done. But most of the addends are missing. What numbers can you figure out to fill in first?
2. How does subtraction help you find the missing numbers in this table?
3. Take turns filling in the missing numbers.

+			30		
	7.75				
	8				
	8.5				121
	9.5			62	
4		19			124

1. This is an addition table, like the others you have done. But most of the addends are missing. What numbers can you figure out to fill in first?
2. How does subtraction help you find the missing numbers in this table?
3. Take turns filling in the missing numbers.
4. What patterns do the addends make down the side and across the top? How do these patterns in the addends affect the patterns in the sums?

+	0	1	2	3	4
0					
1			3		
2				5	
3					7
4					

1. In your group, take turns filling in boxes in the addition table above. When it is your turn, you may choose which box you want to fill in.
2. Explain the pattern of the numbers down the side of the table. Explain the pattern of the numbers across the top.
3. What other patterns do you see in the table?
4. Using the patterns in the table, what is $4 + 5$?

+	0	1	2	3	4
2					6
4			6		
6	6				
8					
10					

1. In your group, take turns filling in boxes in the addition table above. When it is your turn, you may choose which box you want to fill in.
2. How many of the sums in the table are even? How many are odd? What kinds of patterns are formed by the odd and even numbers?
3. What other patterns do you see in the table?
4. Using the patterns in the table, what is $12 + 3$?

+	73	74	75	76	77
125		199			
126					
127					
128					
129				205	

1. In your group, take turns filling in boxes in the addition table above. When it is your turn, you may choose which box you want to fill in.
2. Each student should fill in five boxes using the standard algorithm for addition. After that, you may find the answers in any way that you like, as long as the other students in your group agree with the answer.
3. How many sums in the table come out to exactly 200? Explain why these sums are diagonal from each other.
4. What other patterns do you see in the table?
5. Using the patterns in the table, find $130 + 77$. Then check your answer using the standard algorithm.

+	10	30	50	70	90
4					
6			56		
8				78	
10					
12					

1. In your group, take turns filling in boxes in the addition table above. When it is your turn, you may choose which box you want to fill in.
2. Each student should fill in five boxes using a number line representation. After that, you may find the answers in any way that you like, as long as the other students in your group agree with the answer.
3. Explain the pattern of the numbers down the side of the table. Explain the pattern of the numbers across the top.
4. What other patterns do you see in the table?
5. Using the patterns in the table, find $90 + 14$ and $90 + 16$.

+					