Syl-la-dot
Math Program

K **1** 2 3 4 5

FREE | Instruction Manual

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| ☀ Day | 〰 Instructions | 🔑 Answers |

Number Review

1. Today, we are going to be reviewing the correct formation of numbers 0-10.

2. We will begin with number __ . [0]

3. Let's review the saying for the first number.   [C the 0.]

4. Using your pointer finger, find the starting dot on the large number at the top of the page.

5. Repeat the saying __ out loud as you simultaneously trace the large number. [C the 0.]

6. Next, you will use a pencil to trace the first 2 rows at the bottom of the page.

7. For the last row, you will need to form your own numbers, beginning with the starting dots.

8. Be sure to repeat the saying out loud, while tracing each of these numbers.

9. Use this same method to complete the number on the right side of the page.

Teaching Tips

1. After completing number 10, we dedicate an entire section to reviewing the numbers 0-10 one last time.

Number Values Using Dots

1. Today we are going to focus on numbers and their values.

2. Do you see numbers accompanied by 3 rows of gray dots located in the top section of the page? Let's begin by saying the first number out loud. [2]

3. Now, count out loud as you fill in the same number of dots that represent the value of that number. The first set of dots have already been filled in for you.

4. Please note that there is a system for filling in the dots. Just like reading, you need to start with the top row and proceed from left to right. Ready?

5. Next, you will be applying what you just learned to complete the activity in the bottom section. However, this time the correct number of dots have already been selected. Using your pencil, you will now count and touch the exact number of dots given and write in the correct corresponding number.

Teaching Tips

1. For the best results, students should say each number out loud, as they complete both top and bottom sections of this page.

2. If you should notice that students are forming some of their numbers incorrectly, it is important to review the number formation examples found on the first few pages of their workbook.

Number Chart Completion

1. This number chart reviews numbers ___ . [1-100]

2. Using your pencil, count out loud as you touch each number. When you come to a blank purple box, you will need to fill in the correct number to complete the number sequence. [1, 2, 3, ___ , 5, 6, 7, 8, ___ , 10]

3. Once all boxes have been completed, we will practice saying and touching each number. I will say and touch the numbers in the first row; you can say and touch the numbers in the second.

4. We will continue alternating rows of numbers until the number chart is completed.

Teaching Tips

1. For the best results, it is important for students to say and touch each number whenever they are counting or writing.

Number Sequencing

1. Do you see 4 rows of numbers? We will be examining each row and try to get the numbers in the correct sequence, from smallest to largest.

2. We will begin by looking at the numbers presented in #1. [4, 3, 1, 0, 2]

3. Which number is the smallest? [0]

4. Which number is the largest? [4]

5. Now, say and write the numbers in the correct sequence, from smallest to largest. Be sure to place them in the boxes provided. [0, 1, 2, 3, 4]

6. Each number has a small box located in the corner. Be sure to fill it in once you have selected that number.

7. The remaining rows of numbers should be completed using the same process.

Teaching Tips

1. Each row should be treated as a separate entity.

2. Concepts of smaller vs. larger were already presented in Level K.

Vertical Addition

1. This activity will review the process of simple addition.

2. Let's look at the first problem on the page.

$$\begin{array}{r} 4 \\ + \ 2 \ \cdots \\ \hline \end{array}$$

3. When we see this math problem, we say ___ . [4 plus 2]

4. Do you see the small (+) sign next to the number ___ [2]? In math, we call this the plus sign. It tells us that we are going to be adding or combining these numbers together.

5. Now, let's try to solve this problem.

6. Place the tip of your pencil on the top number and say ___ . [4]

7. Using the pencil tip, touch the ___ [2] dots and count upward ___ [5, 6].

8. You started with ___ [4] and then you added ___ [2] dots.

9. The sum or answer for this addition problem is ___ [6].

10. Now, let's say and touch the top number; then add the dots as we review the first problem together. Remember to count upward as you touch each dot. [5 and 6]

11. Using this same technique, we will complete the remaining problems together.

12. Ready to check your work? We can use the numbers on the side of the page to help us.

13. With your non-writing hand, place your pointer finger on the number ___ . [4]

14. Next, use your pencil tip to move up ___ numbers above your pointer finger. [2]

15. This should take you to number ___ . [6]

16. Using this same method, be sure to check the other addition problems on this page.

Addition Story Problems

1. Today, you will be learning how to solve story problems using addition.

2. For each story problem, the first 2 lines give you information, while the third line generally helps you decide what to do.

3. We will begin by reading #1 together.

4. The first line tells you that ___ [Mary] has ___ [5] apples.

   - Be sure to write this number in the blue box provided at the end of the first line.

5. The second line tells you that ___ [John] has ___ [3] apples.

   - Be sure to write this number in the purple box provided at the end of the second line.

6. Do you see the green word ___ [together]? Sometimes a story problem will include a special word like this to indicate that you need to add these numbers to solve it.

7. You will need to include the following steps when completing an addition problem.

   - Place the tip of your pencil on the top number and say ___ . [5]

   - Using the pencil tip, touch the ___ [3] dots and count upward. [6, 7, 8]

   - You started with ___ [5] and then added ___ [3].

   - The sum or answer for this addition problem is ___ . [8]

   - Be sure to write this answer in the green box provided at the end of the third line.

8. Now, let's say and touch the top number; then add the dots as we review the first story problem.

$$\begin{array}{r} 5 \\ + 3 \\ \hline 8 \end{array}$$

9. Using the same technique, we will complete the remaining problems together.

Vertical & Horizontal Addition

1. This activity reviews the 2 ways to show addition:

$$\begin{array}{r} 6 \\ + 3 \end{array} \cdots \quad \Big| \quad 6 + 3 \cdots =$$

2. We read or say both vertical and horizontal addition problems the same way. [6 plus 3]

3. Complete each problem according to the following addition process:

   • Place the tip of your pencil on the top number and say ___ . [6]

   • Using the pencil tip, touch the ___ [3] dots and count upward. [7, 8, 9]

   • You started with ___ [6] and then added ___ [3].

   • The sum or answer for this addition problem is ___ . [9]

   • Now let's say and touch the top number; then add the dots as we solve the remaining addition problems.

Teaching Tips

1. Using side dots is a transition process. Eventually, students learn the basic facts and will no longer rely on these dots to solve problems.

Horizontal Addition

1. Today, we will be focusing on horizontal addition.

2. Let's begin by saying the first problem together. [6 + 2]

3. Complete each problem according to the following addition process:

   - Place the tip of your pencil on the first number and say __ . [6]

   - Using the pencil tip, touch the __ [2] dots and count upward. [7, 8]

   - You started with __ [6] and then added __ [2].

   - The sum or answer for this addition problem is __ . [8]

   - Together, let's say and touch the numbers in the first equation.

   - Use the same process to complete the remaining addition problems.

Teaching Tips

1. Using side dots is a transition process. Eventually, students learn the basic facts and will no longer rely on these dots to solve problems.

Finding Shapes

1. There are 3 shapes found at the top of the page. [circle, square, triangle]

2. What is the first shape? [circle]

3. What color is this shape? [red]

4. Now, let's try to find all the __ [circles] from the shapes below and color them __ [red].

5. Next, we will find and color the remaining 2 shapes using the same method.

6. Once you have completed coloring in the 3 shapes, you will notice that some shapes are not included and should not receive any color.

Drawing Pictures

1. For this activity, you will be drawing a picture that includes __ .
   [circles, squares, and triangles]

2. Think of something that has different shapes. For example, you could draw a toy, car, house, or even a playground.

3. When you draw, be sure to include one or more __ within your picture.
   [circles, squares, and triangles]

4. Try to use a variety of colors that will compliment your drawing.

5. Now that you have completed your picture, let's see if I can find these 3 shapes.

Patterns

1. This page contains 3 rows of unique patterns. The challenge is to determine the pattern of shapes presented in each row and fill in the missing shape(s).

2. Let's begin with the first row and see if we can figure out the pattern.

3. What shape(s) do you think are missing? There can be between 1-3 missing shapes, depending upon the pattern.

4. Once you figure it out, simply draw in the missing shape(s).

5. Using this same method, you will need to complete the remaining 2 rows of patterns.

6. Finally, I would like you to create your own pattern at the bottom of the page. You may select from the variety of shapes provided.

Graphing

1. Today, we are going to be graphing information.

2. In fact, a graph has already been started at the bottom of the page.

3. As you can see, the graph is divided into columns.

4. What shape is shown below the first column? [circle]

5. How many of these shapes can you find in the top half of the page? [4]

6. Now, let's color the same number of boxes in the first column. The number of boxes to color should match the assigned number on the side of the graph.

7. Next, complete this graph by coloring in the correct number of boxes for the remaining shapes.

Teaching Tips

1. Students will be graphing additional shapes as they progress through Level 1.

Counting by 2's Chart

1. This activity will help you learn how to count by 2's.

2. Sorting pennies into groups of 2 is probably the easiest way to demonstrate the concept.

3. First, you will need to count out 10 pennies and group them into pairs of 2's.

4. Next, let's practice counting these pennies by 2's. For each pair of pennies, you skip over the first number and only say the second number out loud.
[2, 4, 6, 8, 10]

5. Now, do you see the 5 columns of numbers on your page? Each column has both white and orange sections.

6. The white sections contain numbers; however, the orange sections need to be filled in.

7. We will complete this activity together, working our way down each column. It is important that all numbers follow the normal counting order or sequence.

8. Finally, using the tip of your pencil, say and touch every number that you wrote within the orange sections. Remember to begin the first column and work your way down. This is called counting by 2's.

Missing 2's Chart

1. Today, you will be filling a number chart that includes numbers 1-100.

2. Each row of numbers contains a combination of both white and blue boxes.

3. The white boxes already contain numbers; however, the blue boxes need to be filled in.

4. We will complete this activity together, row by row. It is important that numbers are in consecutive order. Let's begin.

5. Finally, using the tip of your pencil, say and touch every number that you wrote within the blue sections, beginning with the first row and completing the remaining rows of numbers.

6. While doing this activity, did you notice any special patterns? If you said that you were counting by 2's, you are exactly right!

Vertical Subtraction

1. This activity will review the process of simple subtraction.

2. In subtraction, you must find the difference between 2 numbers. Since the difference between the 2 numbers is usually smaller, you will need to learn how to count down from the larger number to the smaller number.

3. Do you see the numbers on the side of the page? Take your pencil and point to each number as we say them together. We will begin with 18 at the top and work our way down to 0.

4. Now, let's look at the first problem on the page.
$$\begin{array}{r} 9 \\ - \ 2 \ \cdot\cdot \\ \hline \end{array}$$

5. When we see this math problem, we say __ . [9 minus 2]

6. Do you see the small (–) sign next to the __ [2]? In math, we call this the minus sign. It tells us that we need to find the difference between the 2 numbers. We need to know how much larger the top number is than the bottom / smaller number.

7. Place the tip of your pencil on the top number and say __ . [9]

8. Using your pencil, count downward __ [2] numbers as you touch each dot. [8, 7]

9. The difference or answer for this subtraction problem is __ . [7]

10. Using the same technique, we will complete the remaining problems together.

11. Finally, we are going to check your work using the numbers on the side.

    • With your non-writing hand, place your pointer finger on the number __ . [9]

    • Using the tip of your pencil, move __ numbers below your pointer finger. [2]

    • You should have landed on __ . [7]

12. Complete checking the other subtraction problems on this page.

Subtraction Story Problems

1. Today, you will be learning how to solve story problems using subtraction.

2. For each story problem, the first 2 lines give you information, while the third line generally helps you decide what to do.

3. We will begin by reading #1 together.

4. The first line tells you that ___ [Will] bought ___ [3 candy bars].

   - Be sure to write this number in the blue box provided at the end of the first line.

5. The second line tells you that ___ [his parents] took away ___ [2 candy bars].

   - Be sure to write this number in the purple space provided at the end of the second line.

6. Do you see the red words ___ [took away]? Sometimes story problems will include special words like this to indicate that you need to subtract these numbers to solve it.

7. You will need to include the following steps when completing a subtraction problem.

   - Place the tip of your pencil on the top number and say ___ . [3]

   - Using the pencil tip, touch the ___ [2] dots and count downward ___ [2, 1].

   - You started with ___ [3] and then subtracted ___ [2].

   - The difference or answer for this subtraction problem is ___ [1].

   - Be sure to write this answer in the red box provided at the end of the third line.

8. Now, let's say and touch the top number; then subtract the dots as we review the first story problem.

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

9. Using the same technique, we will complete the remaining problems together.

1. This activity reviews the 2 ways to show subtraction:

$$\begin{array}{r} 8 \\ -\ 3 \end{array} \cdots \quad \Big| \quad 8 - 3 \cdots =$$

2. We read or say both vertical and horizontal subtraction problems the same way: ___ . [8 minus 3]

3. Complete each problem according to the following subtraction process:

   • Place the tip of your pencil on the first number and say ___ . [8]

   • Using the pencil tip, touch the ___ [3] dots and count downward. [7, 6, 5]

   • You started with ___ [8] and then subtracted ___ [3].

   • The difference or answer for this subtraction problem is ___ . [5]

   • Now, let's say and touch each number; then subtract the dots as we solve the remaining subtraction problems.

Teaching Tips

1. Using side dots is a transitional process. Eventually, students learn the basic facts and will no longer rely on these dots to solve problems.

Horizontal Subtraction

1. Today, we will be focusing on horizontal subtraction.

2. Let's begin by saying the first problem together. [7 - 5]

3. Complete each problem according to the following subtraction process:

   - Place the tip of your pencil on the first number and say ___ . [7]

   - Using your pencil tip, touch the ___ [5] dots and count downward. [6, 5, 4, 3, 2]

   - You started with ___ [7] and then subtracted ___ [5].

   - The difference or answer for this subtraction problem is ___ . [2]

   - Together, let's say and touch the numbers in the first equation.

   - Use the same process to complete the remaining subtraction problems.

Teaching Tips

1. Using side dots is a transition process. Eventually, students learn the basic facts and will no longer rely on these dots to solve problems.

Counting by 5's Chart

1. This activity will help you learn how to count by 5's.

2. Counting nickels is the easiest way to demonstrate this concept.

3. First, you will need to separate 20 nickels into a pile.

4. Since each nickel is equal to 5 pennies, let's count these nickels by 5's.
   [5, 10, 15, 20, ... , 100]

5. Your page is divided into 2 sections. The orange columns are missing a number and need to be completed. Now, let's look at the first row.
   [1, 2, 3, 4, __]

6. What number is missing? [5]

7. We will complete this activity together, working our way down each orange column.

8. Finally, using the tip of your pencil, say and touch every number that you wrote within the orange columns. This is called counting by 5's.

Missing 5's Chart

1. Today, you will be completing a number chart that includes numbers 1-100.

2. Each row of numbers contains a combination of both white and blue boxes.

3. The white boxes already contain numbers; however, the blue boxes need to be filled in.

4. We will complete this activity together, row by row. It is important that numbers are in consecutive order. Let's begin.

5. Finally, using the tip of your pencil, say and touch every number that you wrote within the blue boxes, beginning with the first row and completing the remaining rows of numbers.

6. While doing this activity, did you notice any special patterns? If you said that you were counting by 5's, you are exactly right!

Fractions of a Circle

1. There are different ways to form a complete or whole circle.

2. If you divide a whole circle into halves, you will have 2 parts. 2 halves equals 1 whole circle. (Demonstrate on white board.)

3. If you divide a whole circle into quarters, you will have 4 parts. 4 quarters equals 1 whole circle. (Demonstrate on white board.)

4. At the top of your page, you can see another way to form a whole circle. 1 half + 1 quarter + 1 quarter = 1 whole circle. (Demonstrate on white board).

5. Today's activity is to identify how many whole circles you can form in each row.

6. Let's begin with #1. [Whole + Whole + Half + Half]

7. Draw a line around each combination of fractions that form a whole circle.

8. Next, write the number of whole circles that can be formed from this group. [3]

9. We will continue to identify the number of whole circles that can be formed from the remaining fraction combinations.

Teaching Tips

1. Teacher should demonstrate the concept of whole, half, and quarter fractions. Students can practice drawing and coloring in various fraction combinations to form whole circles on a white board.

Clock Introduction

1. There are 2 types of clocks: analog and digital.

2. Analog clocks show a clock face.

3. Digital clocks only show numbers.

4. All clocks are based on the numbers 1-12.

5. Analog clocks can have 3 different hands - hour, minute and second. For our purpose, we are only going to focus on the hour and minute hands.

6. Let's begin by looking at the clock on the top of your page. We call this an analog clock, because it has a face.

7. When telling time using an analog clock, we first look at the shorter hand or hour hand. On your page, the short hour hand (red) is pointing to the number ___. [3]

8. Now, do you see the longer minute hand (blue)? When the minute hand is pointing straight up to the number 12, at the top, we say o'clock.

9. After viewing both hands on the face of this clock, we say the time is exactly 3 o'clock.

10. Do you see the rectangular box beneath the analog clock? This is called a digital clock.

11. A digital clock does not have a face - only numbers.

12. At the bottom of the page, the digital clock begins with the number 3. The two zeros represent the word o'clock.

13. Whether you use the analog or digital clock, the time on both is 3 o'clock.

Clock Matching

1. This page shows a combination of both analog and digital clocks.

2. Using what you have already learned, you will be matching each digital clock with an analog clock displaying the same time.

3. Let's look at the first digital clock. The time shown is __ . [5:00]

4. Next, locate an analog clock that displays the same time. [5 o'clock]

5. Now, draw a line between these 2 matching clocks.

6. Continue matching clocks until today's activity is completed.

Drawing Clock Faces

1. Today's lesson involves drawing clock faces to match the designated time indicated below each one.

2. The first designated time on your page is ___ . [7:00]

3. Now, let's draw a face on the first clock to represent this time.

4. We will start by drawing in the short hour hand. Begin at the center dot and extend your drawing halfway to the number ___ [7]. It should point directly to this number.

5. Next, we will need to draw in the longer minute hand. Begin at the center dot and extend your drawing far enough to touch the number 12.

6. The remaining clocks should be completed in the same way.

Teaching Tips

1. Students must be able to demonstrate how to form the hour and minute hands correctly.

2. Keep in mind that the hour hand should always be shorter.

3. The minute hand is longer and touches the number.

Half Past

1. Remember when we learned about the fractions of a circle? This is quite similar. Just think of a clock as a circle.

2. Now, imagine dividing a clock in half. Starting with the number 12 at the top, we move clockwise (to the right) halfway around the circle, until we get to the number 6 at the bottom. The distance between the 12 and 6 represents half of the circle or clock.

3. Today, we are going to learn about telling time midway or half after an hour on a clock. It is called half past.

4. For #1, we need to decide which clock represents half past ___ . [11]

   - Is the red hour hand located midway between the numbers ___ [11] and ___ [12]?

   - Is the blue minute hand touching the number 6 at the bottom?

5. Next, fill in the circle beneath the clock that shows half past ___ . [11]

6. Keep looking for half past patterns when completing this page.

Quarter Past

1. Remember when we learned about the fractions of a circle? This is quite similar. Just think of a clock as a circle.

2. Now, imagine dividing a clock in quarters. Starting with the number 12 at the top, we move clockwise (to the right) a quarter around the circle, until we get to the number 3. The distance between the 12 and 3 represents a quarter of the circle or clock.

3. Today, we are going to learn about telling time a quarter after an hour on a clock. It is called a quarter past.

4. For #1, we need to decide which clock represents quarter past ___ . [5]

   • Is the red hour hand pointing slightly after the number ___ ? [5]

   • Is the blue minute hand touching the number 3 on the right?

5. Next, fill in the circle beneath the clock that shows quarter past ___ . [5]

6. Keep looking for quarter past patterns when completing this page.

Quarter To

1. Remember when we learned about the fractions of a circle? This is quite similar. Just think of a clock as a circle.

2. Now, imagine dividing a clock in quarters. Starting with the number 12 at the top, we move clockwise (to the right) until we get to the number 9. The distance between the 12 and 9 covers three quarter sections of the circle or clock.

3. Today, we are going to learn about telling time a quarter before the upcoming hour on a clock. It is called quarter to.

4. For #1, we need to decide which clock represents quarter to ___ . [2]

   - Is the red hour hand pointing after the number ___ [1], but closer to the number ___ [2]?

   - Is the blue minute hand touching the number 9 on the left?

5. Next, fill in the circle beneath the clock that shows quarter to ___ . [2]

6. Keep looking for quarter to patterns when completing this page.

Teaching Tips

1. For half past, the hour hand is positioned exactly halfway between 2 numbers.

2. For quarter past, the hour hand is positioned closer to the lower number.

3. For quarter to, the hour hand is positioned closer to the higher number.

Adding 10 Chart

1. Today, you will learn how to add by 10's.

2. Let's begin with the first green column and work our way down.

3. What number do you see at the top of that green column? [1]

4. We are going to add 10 and write the number ___ in the next green box. [11]

5. For the remainder of the column, just keep adding 10. Another way to think of it is to increase the first number all the way down. [11, 21, 31, 41, ... , 91]

6. We will complete this activity together, column by column. Let's begin.

7. Finally, using the tip of your pencil, say and touch every number in each of the green columns.

Double Digit Addition

1. This activity expands addition by using double digits.

2. Let's look at the first problem on the page.

$$\begin{array}{r} 42 \\ +\ 36 \\ \hline \end{array}$$

3. There is another way to think of this problem:

$$\begin{array}{cc} 4\ \text{dimes} & 2\ \text{pennies} \\ +\quad 3\ \text{dimes} & 6\ \text{pennies} \\ \hline \end{array}$$

4. Always begin with the pennies' column. There is an arrow showing you where to start.

   - Place the tip of your pencil on the top number and say __ . [2]

   - Do you see the dots next to the number __ ? [6]

   - Now, add these dots by counting upward as you say and touch each dot. [3, 4, 5, 6, 7, 8]

   - Write your answer under the pennies' column. [8]

5. Move to the dimes' column.

   - Place the tip of your pencil on the top number and say __ . [4]

   - Do you see the dots next to the number __ ? [3]

   - Add these dots by counting upward as you say touch each dot. [5, 6, 7]

   - Write your answer under the dimes' column. [7]

6. The sum or answer to this problem is __ .

$$\begin{array}{r} 42 \\ +\ 36 \\ \hline 78 \end{array}$$

7. Be sure to complete the remaining math problems using the same method.

Double Digit Addition Story Problems

1. Today, you will be learning how to solve story problems using double digit addition.

2. For each story problem, the first 2 lines give you information, while the third line generally helps you decide what to do.

3. As we read the first story problem together, let's start filling in the missing numbers.

$$
\begin{array}{r}
\text{I spent 25 dollars on lunch today.} \\
\text{I also spent 13 dollars on my haircut.} \\
\hline
\text{How much money did I spend today?}
\end{array}
\qquad
\begin{array}{r}
25 \\
+ \ \ \dot{\ }13 \ \cdots \\
\hline
?\,?
\end{array}
$$

4. There is another way to think of this problem:

$$
\begin{array}{r}
2 \ \text{dimes} \qquad 5 \ \text{pennies} \\
+ \ \ \dot{\ } 1 \ \text{dime} \qquad 3 \ \text{pennies} \ \cdots \\
\hline
\end{array}
$$

5. Always begin with the pennies' column. There is an arrow showing you where to start.

   - Place the tip of your pencil on the top number and say ___ . [5]

   - Do you see the dots next to the number ___? [3]

   - Now, add these dots by counting upward as you say and touch each dot. [6, 7, 8]

   - Write your answer under the pennies' column. [8]

6. Move to the dimes' column.

   - Place the tip of your pencil on the top number and say ___ . [2]

   - Do you see the dots next to the number ___? [1]

   - Add these dots by counting upward as you say and touch each dot. [3]

   - Write your answer under the dimes' column. [3]

7. The sum or answer to this problem is ___ .

$$
\begin{array}{r}
25 \\
+ \ \ \dot{\ }13 \ \cdots \\
\hline
38
\end{array}
$$

8. Be sure to complete the remaining math problems using the same method.

1. This activity expands addition by using double digits with carrying.

2. Let's look at the first problem on the page.

$$\begin{array}{r} 1\,9 \\ + \quad \cdot\ 1\,7\ \vdots\vdots \\ \hline \end{array}$$

3. There is another way to think of this problem:

	1 dime	9 pennies
+ $\cdot$	1 dime	7 pennies $\vdots\vdots$

4. Always begin with the pennies' column. There is an arrow showing you where to start.

   • Place the tip of your pencil on the top number and say ___ . [9]

   • Do you see the dots next to the number ___ ? [7]

   • Now, add these dots by counting upward as you say and touch each dot. [8, 9, 10, 11, 12, 13, 14, 15, 16]

   • Write you answer under the pennies' column. [16]

5. Move to the dimes' column.

   • Place the tip of your pencil on the top number and say ___ . [1]

   • Do you see the dots next to the number ___ ? [1]

   • Add these dots by counting upward as you say and touch each dot. [2]

   • Write your answer under the dimes' column. [2]

6. This is how your problem looks so far:

	1 dime	9 pennies
+ $\cdot$	1 dime	7 pennies $\vdots\vdots$
	2 dimes	16 pennies

   • Because you are only allowed to write a single digit answer in the pennies' column, you will need to convert ___ [16] pennies into ___ [1] dime and ___ [6] pennies. Write down the number of pennies ___ [6] that will remain in the pennies' column.

$$\begin{array}{r} 1 \\ 19 \\ +\ \cdot\ 17 \\ \hline 36 \end{array}$$

- Next, carry the 1 dime over to dimes' column and add it in.

7. The sum or answer to this problem is __ . [36]

8. Be sure to complete the remaining math problems using the same method.

Teaching Tips

1. Every addition problem involving carrying will have a special box, where you can show how you carried the 1 dime over from the pennies' column.

2. The process of carrying involves 2 steps. The student's initial answer will need to be erased / modified in order to obtain their final answer.

1. This activity expands addition by using double digit addition with carrying.

2. For each story problem, the first 2 lines give you information, while the third line generally helps you decide what to do.

3. As we read the first story problem together, let's start filling in the missing numbers.

Dan talked to his mom for 37 minutes.
He also talked to his dad for 18 minutes.
_____
How long did Dan talk to his family?

```
      37
+  · 18 :::
  _____
     ? ?
```

4. There is another way to think of this problem:

```
    3  dimes     7  pennies
+  · 1  dime      8  pennies :::
  _____
```

5. Always begin with the pennies' column. There is an arrow showing you where to start.

   • Place the tip of your pencil on the top number and say __ . [7]

   • Do you see the dots next to the number __? [8]

   • Now, add these dots by counting upward as you say and touch each dot. [8, 9, 10, 11, 12, 13, 14, 15]

   • Write your answer under the pennies' column. [15]

6. Move to the dimes' column:

   • Place the tip of your pencil on the top number and say __ . [3]

   • Do you see the dots next to the number __? [1]

   • Add these dots by counting upward as you say and touch each dot. [4]

   • Write your answer under the dimes' column __ . [4]

7. This is how the problem looks so far:

```
    3  dimes      7  pennies
+  · 1  dime       8  pennies :::
  _____
    4  dimes     15  pennies
```

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- Because you are only allowed to write a single digit answer in the pennies' column, you will need to convert ___ [15] pennies into ___ [1] dime and ___ [5] pennies. Write down the number of pennies ___ [5] that will remain in the pennies' column.

- Next, carry the 1 dime over to dimes' column and add it in.

$$
\begin{array}{r}
1 \\
37 \\
+\ \cdot 18 \\
\hline
55
\end{array}
$$

8. The sum or answer to this problem is ___ . [55]

9. Be sure to complete the remaining math problems using the same method.

Teaching Tips

1. Every addition problem involving carrying will have a special box, where you can show how you carried the 1 dime over from the pennies' column.

2. The process of carrying involves 2 steps. The student's initial answer will need to be erased / modified in order to obtain their final answer.

Double Digit Subtraction

1. This activity expands subtraction by using double digits.

2. Let's look at the first problem on the page.

$$\begin{array}{r} 76 \\ - \quad 15 \\ \hline \end{array}$$

3. There is another way to think of this problem:

$$\begin{array}{r r} 7 \text{ dimes} & 6 \text{ pennies} \\ - \quad 1 \text{ dime} & 5 \text{ pennies} \\ \hline \end{array}$$

4. Always begin with the pennies' column. There is an arrow showing you where to start.

   • Place the tip of your pencil on the top number and say ___ . [6]

   • Do you see the dots next to the number ___ ? [5]

   • Now, subtract these dots by counting downward as you say and touch each dot. (5, 4, 3, 2, 1)

   • Write your answer under the pennies' column. [1]

5. Move to the dimes' column.

   • Place the tip of your pencil on the top number and say ___ . [7]

   • Do you see the dots next to the number ___ ? [1]

   • Subtract these dots by counting downward as you say and touch each dot. [6]

   • Write your answer under the dimes' column. [6]

6. The difference or answer to this problem is ___ .

$$\begin{array}{r} 76 \\ - \quad 15 \\ \hline 61 \end{array}$$

7. Be sure to complete the remaining math problems using the same method.

Blank Page

1. Today, you will be learning how to solve story problems using double digit subtraction.

2. For each story problem, the first 2 lines give you information, while the third line generally helps you to decide what to do.

3. As we read the first story problem together, let's start filling in the missing numbers.

I counted 89 people at the park.	89
Then I saw 63 people leave.	$-$ ∷ 63 ⋯
How many people were left?	? ?

4. There is another way to think of this problem.

        8 dimes   9 pennies
$-$ ∷ 6 dimes   3 pennies ⋯

5. Always begin with the pennies' column. There is an arrow showing you where to start.

   • Place the tip of your pencil on the top number and say ___ . [9]

   • Do you see the dots next to the number ___? [3]

   • Now, subtract these dots by counting downward as you say and touch each dot. [8, 7, 6]

   • Write your answer under the pennies' column. [6]

6. Move to the dimes' column:

   • Place the tip of your pencil on the top number and say ___ . [8]

   • Do you see the dots next to the number ___? [6]

   • Subtract these dots by counting downward as you say and touch each dot. [7, 6, 5, 4, 3, 2]

   • Write your answer under the dimes' column ___ . [2]

7. The difference or answer to this problem is ___ .

       89
$-$ ∷ 63 ⋯
       26

8. Be sure to complete the remaining math problems using the same method.

Greater Than

1. For our next activity, we are going to compare numbers and decide which is larger or greater than the other.

2. Let's look at the numbers presented in #1. [29 and 95]

3. Ask yourself this question: Who is older, a person that is __ [29] years old or a person that is __ [95] years old?

4. Using this example, we know that __ [95] is greater than __ [29].

5. Now, let's circle the larger number __ . [95]

6. We use the symbol (>) to show the concept of greater than.

7. Do you see the alligator's open mouth? It always tries to bite the larger number. [95 > 29]

8. Let's say the comparison out loud, as we fill in the boxes to show the greater than relationship between the 2 numbers. [95 is greater than 29]

9. Remember to say the remaining comparisons out loud as you complete this page.

Less Than

1. Today, we are going to compare numbers and decide which is smaller or less than the other.

2. Let's look at the numbers presented in #1. **[7 and 164]**

3. Ask yourself this question: If you were counting pennies, which number would represent a smaller amount? **[7]**

4. Using this example, we know that ___ **[7]** is smaller or less than ___ **[164]**.

5. Now, let's circle the smaller number ___ . **[7]**

6. We use the symbol (<) to show the concept of less than.

7. Notice that the closed end of the alligator's mouth is closer to the smaller number. **[7 < 164]**

8. Let's say the comparison out loud, as we fill in the boxes to show the less than relationship between the 2 numbers. **[7 is less than 164]**

9. Remember to say the remaining comparisons out loud as you complete this page.

Greater Than, Less Than, or Equal To

1. For our next activity, we will be comparing pairs of numbers, using 3 different symbols: greater than (>), less than (<), or equal to (=).

2. Let's begin with #1. [152 ___ 57]

3. Is the first number ___ [152] greater than, less than, or equal to the second number ___ [57]?

4. If the first number is ___ [greater than], we can describe the relationship as: ___ [152 > 57].

5. There are additional pairs of numbers to compare. Fill in the gray box with the appropriate symbol when describing these relationships. [>, <, =]

6. When you get to problems #9 and #10, you will need to create your own number comparisons. You may use greater than (>), less than (<), or equal to (=).

7. Now, let's say the remaining comparisons out loud as you complete this page.

Blank Page

1. This activity expands subtraction by using double digits with borrowing.

2. Let's look at the first problem on the page.
$$\begin{array}{r} 20 \\ - \ \cdot \ 18 \ \vdots \vdots \\ \hline \end{array}$$

3. There is another way to think of this problem:

$$\begin{array}{r} 2 \ \text{dimes} \qquad 0 \ \text{pennies} \\ - \ \cdot \ 1 \ \text{dime} \qquad \ 8 \ \text{pennies} \ \vdots \vdots \\ \hline \end{array}$$

4. Always begin with the pennies' column. There is an arrow showing you where to start.

5. Since ___ [0] pennies is less than ___ [8] pennies, we need to borrow a dime from the dimes' column.

   - First, draw a line through the ___ [2] and write the number ___ [1] in the box provided. This shows that you now have one less dime in the dimes' column.

   - Next, take this borrowed dime and add it to the pennies' column by writing a number 1 next to the ___ [0]. Now, you have the number ___ [10] in the pennies' column.

$$\begin{array}{r} 1 \\ \cancel{2}^{1}0 \\ - \ \cdot \ 1 \ 8 \ \vdots \vdots \\ \hline \end{array}$$

6. Let's complete the subtraction process, beginning with the pennies' column.

   - Place the tip of your pencil on the top number and say ___ . [10]

   - Do you see the dots next to the number ___? [8]

   - Now, subtract these dots by counting downward as you say and touch each dot. [9, 8, 7, 6, 5, 4, 3, 2]

   - Write you answer under the pennies' column. [2]

7. Move to the dimes' column.

   - Place the tip of your pencil on the top number and say ___ . [1]

   - Do you see the dots next to the number ___? [1]

   - Subtract these dots by counting downward as you say and touch each dot. [0]

   - Write you answer under the dimes' column. [0]

8. The difference or answer to this problem is ___ .

$$
\begin{array}{r}
{}^{1}\;\;\; \\
\not{2}{\,}^{1}0 \\
-\;\cdot\;1\;\;8 \\
\hline
0\;\;2
\end{array}
$$

9. Be sure to complete the remaining math problems using the same method.

1. Today, you will be solving story problems using double digit subtraction with borrowing.

2. For each story problem, the first 2 lines give you information, while the third line generally helps you decide what to do.

3. As we read the first story problem together, let's start filling in the missing numbers.

Dan had 24 boxes in his garage.
He chose to throw out 17 of them.
_____
What is the total number of boxes left?

$$\begin{array}{r} 24 \\ - \ 17 \\ \hline ? \ ? \end{array}$$

4. There is another way to think of this problem:

$$\begin{array}{r} 2 \text{ dimes} \quad 4 \text{ pennies} \\ - \ 1 \text{ dime} \quad 7 \text{ pennies} \\ \hline \end{array}$$

5. Since ___ [4] pennies are less than ___ [7] pennies, we need to borrow a dime from the dimes' column.

   • First, draw a line through the ___ [2] and write the number ___ [1] in the box provided. This shows that you now have one less dime in the dimes' column.

   • Next, take this borrowed dime and add it to the pennies' column by writing a number 1 next to the ___ [4]. Now, you have the number ___ [14] in the pennies' column.

$$\begin{array}{r} 1 \\ \cancel{2}^1 4 \\ - \ 1 \ 7 \\ \hline \end{array}$$

6. Let's complete the subtraction process, beginning with the pennies' column.

   • Place the tip of your pencil on the top number and say ___ . [14]

   • Do you see the dots next to the number ___? [7]

   • Subtract these dots by counting downward as you say and touch each dot. [13, 12, 11, 10, 9, 8, 7]

   • Write you answer under the pennies' column. [7]

7. Move to the dimes' column.

   • Place the tip of your pencil on the top number and say ___ . [1]

   • Do you see the dots next to the number ___? [1]

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- Subtract these dots by counting downward as you say and touch each dot. [O]

- Write you answer under the dimes' column. [O]

8. The difference or answer to this problem is ___ .

$$
\begin{array}{r}
2\!\!\!/\,^14 \\
-\quad 1\ 7 \\
\hline
0\ 7
\end{array}
$$

9. Be sure to complete the remaining math problems using the same method.

Counting Tally Marks

1. This activity will teach you how to count tally marks.

2. Tally marks are usually written as groups or sets of lines. Each line represents 1. So, if you see 4 lines, the quantity or answer is 4; a set of 5 tally marks represents the number 5. Notice how the fifth tally mark is drawn diagonally across the other 4. (I, II, III, IIII, ⅢⅠ)

3. We are going to use the tally mark display at the top of your page to determine the total number of tally marks presented in each row.

4. Let's begin with #1. [ⅢⅠ III]

5. How many tally marks can you count? [8]

6. Write your answer in the gray box provided at the end of the line.

7. Continue counting and recording the number of tally marks found in each of the remaining rows.

8. Hint: If you see groups or sets of 5 tally marks, simply count by 5's; then add in the remaining single tally marks.

Writing Tally Marks

1. When using tally marks, it is important to know how to write them.

2. Using the tally mark display, at the top of your page, will help us complete today's activity.

3. Let's begin with #1.

4. What is the first number? [5]

5. If the first number is ___ [5], that means that we will need to include the same number of tally marks. [IIII]

6. If you are asked to write tally marks for a number higher than what is provided on display (21), you will need to use a combination of marks. First, create sets of 5's; then add in extra tally marks to equal the desired number. (IIII IIII IIII IIII I)

7. We will complete this page together.

Pennies for Nickels

1. This activity involves trading pennies for nickels.

2. First, you will need to grab a large handful of pennies and place them within the top section labeled: **Handful of Pennies**.

3. Next, you will need to separate 5 pennies away from the top pile and slide them down to the middle section labeled: **5 Pennies**.

4. Next, remove these 5 pennies off the page and replace them with a nickel, since 1 nickel is worth 5 pennies. (The pennies should be placed back into their container for later use.)

5. This nickel should then be placed within the bottom section of the page labeled: **1 Nickel**.

6. Let's continue trading until we have exhausted our supply of pennies / nickels.

7. Knowing that each nickel is worth 5 pennies, we can practice counting by 5's, using the nickels at the bottom of the page.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 100 pennies and 20 nickels.

4. This lesson can be repeated for additional practice.

Pennies for Dimes

1. This activity involves trading pennies for dimes.

2. First, you will need to grab a large handful of pennies and place them within the top section labeled: **Handful of Pennies.**

3. Next, you will need to separate 10 pennies away from the top pile and slide them down to the middle section labeled: **10 Pennies.**

4. Next, remove these 10 pennies off the page and replace them with a dime, since 1 dime is worth 10 pennies. (The pennies should be placed back into their container for later use.)

5. This dime should then be placed within the bottom section of the page labeled: **1 Dime.**

6. Let's continue trading until we have exhausted our supply of pennies / dimes.

7. Knowing that each dime is worth 10 pennies, we can practice counting by 10's, using the dimes at the bottom of the page.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 100 pennies and 10 dimes.

4. This lesson can be repeated for additional practice.

Pennies for Quarters

1. This activity involves trading pennies for quarters.

2. First, you will need to grab a large handful of pennies and place them within the top section labeled: **Handful of Pennies.**

3. Next, you will need to separate 25 pennies away from the top pile and slide them down to the middle section labeled: **25 Pennies.**

4. Next, remove these 25 pennies off the page and replace them with a quarter, since 1 quarter is worth 25 pennies. (The pennies should be placed back into their container for later use.)

5. This quarter should then be placed within the bottom section of the page labeled: **1 Quarter.**

6. Let's continue trading until we have exhausted our supply of pennies / quarters.

7. Knowing that each quarter is worth 25 pennies, I can show you how to count by 25's, using the quarters at the bottom of the page. **[25, 50, 75, 100]**

8. Now, stack your quarters into groups of 4. Each stack is equal to 1 dollar.

9. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 200 pennies and 8 quarters.

4. This lesson can be repeated for additional practice.

Nickels for Dimes

1. This activity involves trading nickels for dimes.

2. First, you will need to grab a large handful of nickels and place them within the top section labeled: **Handful of Nickels.**

3. Next, you will need to separate 2 nickels away from the top pile and slide them down to the middle section labeled: **2 Nickels.**

4. Next, remove these 2 nickels off the page and replace them with a dime, since 1 dime is worth 2 nickels. (The nickels should be placed back into their container for later use.)

5. This dime should then be placed within the bottom section of the page labeled: **1 Dime.**

6. Let's continue trading until we have exhausted our supply of nickels / dimes.

7. Knowing that each dime is worth 10 pennies, we will practice counting by 10's, using the dimes at the bottom of the page.

8. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 40 nickels and 20 dimes.

4. This lesson can be repeated for additional practice.

Nickels for Quarters

1. This activity involves trading nickels for quarters.

2. First, you will need to grab a large handful of nickels and place them within the top section labeled: **Handful of Nickels.**

3. Next, you will need to separate 5 nickels away from the top pile and slide them down to the middle section labeled: **5 Nickels.**

4. Next, remove these 5 nickels off the page and replace them with a quarter, since 1 quarter is worth 5 nickels. (The nickels should be placed back into their container for later use.)

5. This quarter should then be placed within the bottom section of the page labeled: **1 Quarter.**

6. Let's continue trading until we have exhausted our supply of nickels / quarters.

7. Knowing that each quarter is worth 25 pennies, I can show you how to count by 25's, using the quarters at the bottom of the page. **[25, 50, 75, 100]**

8. Now, stack your quarters into groups of 4. Each stack is equal to 1 dollar.

9. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 60 nickels and 12 quarters.

4. This lesson can be repeated for additional practice.

Nickels for Dollars

1. This activity involves trading nickels for dollars.

2. First, you will need to grab a large handful of nickels and place them within the top section labeled: **Handful of Nickels.**

3. Next, you will need to separate 20 nickels away from the top pile and slide them down to the middle section labeled: **20 Nickels.**

4. Knowing that each nickel is worth 5 pennies, we will practice counting by 5's, using the 20 nickels that we just separated from the pile.

5. Next, remove these 20 nickels off the page and replace them with a dollar, since 1 dollar is worth 20 nickels. (The nickels should be placed back into their container for later use.)

6. This dollar should then be placed within the bottom section of the page labeled: **1 Dollar.**

7. Let's continue trading until we have exhausted our supply of nickels / dollars.

8. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 60 nickels and 3 dollars.

4. This lesson can be repeated for additional practice.

Dimes for Dollars

1. This activity involves trading dimes for dollars.

2. First, you will need to grab a large handful of dimes and place them within the top section labeled: **Handful of Dimes**.

3. Next, you will need to separate 10 dimes away from the top pile and slide them down to the middle section labeled: **10 Dimes**.

4. Knowing that each dime is worth 10 pennies, we will practice counting by 10's as we separate the dimes from the top pile.

5. Next, remove these 10 dimes off the page and replace them with a dollar, since 1 dollar is worth 10 dimes. (The dimes should be placed back into their container for later use.)

6. This dollar should then be placed within the bottom section of the page labeled: **1 Dollar**.

7. Let's continue trading until we have exhausted our supply of dimes / dollars.

8. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 40 dimes and 4 dollars.

4. This lesson can be repeated for additional practice.

Quarters for Dollars

1. This activity involves trading quarters for dollars.

2. First, you will need to grab a large handful of quarters and place them within the top section labeled: **Handful of Quarters**.

3. Next, you will need to separate 4 quarters away from the top pile and slide them down to the middle section labeled: **4 Quarters**.

4. Next, remove these 4 quarters off the page and replace them with a dollar, since 1 dollar is worth 4 quarters. (The quarters should be placed back into their container for later use.)

5. This dollar should then be placed within the bottom section of the page labeled: **1 Dollar**.

6. Let's continue trading until we have exhausted our supply of quarters / dollars.

7. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 16 quarters and 4 dollars.

4. This lesson can be repeated for additional practice.

Pennies for Dollars

1. This activity involves trading pennies for dollars.

2. First, you will need to grab a large handful of pennies and place them within the top section labeled: **Handful of Pennies.**

3. Next, you will need to separate 100 pennies away from the top pile and slide them down to the middle section labeled: **100 Pennies.**

4. Next, remove these 100 pennies off the page and replace them with a dollar, since 1 dollar is worth 100 pennies. (The pennies should be placed back into their container for later use.)

5. This dollar should then be placed within the bottom section of the page labeled: **1 Dollar.**

6. Let's continue trading until we have exhausted our supply of pennies / dollars.

7. How much money do you have? Let's count.

Teaching Tips

1. For lessons involving basic money concepts, you will need to provide 5 containers filled with an ample supply of pennies, nickels, dimes, quarters, and 1-dollar bills.

2. Since students will be asked to grab a handful of coins, wide containers would probably work best.

3. Today's activity will require at least 200 pennies and 2 dollars.

4. This lesson can be repeated for additional practice.

Coins for Dollars

1. This activity involves trading coins for dollars. Let's work together.

2. First, you will need to grab a large handful of coins that includes pennies, nickels, dimes, and quarters and place them within the top section labeled: **Handful of Coins.**

3. Next, separate an assortment of coins from the top pile that add up to 1 dollar. Then slide them down to the middle section labeled: **You Choose.** You could bring down 100 pennies, 20 nickels, 10 dimes, 4 quarters, or a combination of these to equal 1 dollar.

4. Remove these coins off the page and replace them with a dollar. (These coins should be placed back into their container for later use.)

5. This dollar should then be placed within the bottom section of the page labeled: **1 Dollar.**

6. How much money do you have? Let's count.

Teaching Tips

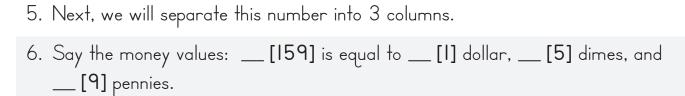1. Since there are different ways to form a dollar, this activity can be repeated.

Place Values Using Money: Ones & Tens

1. Today, we are going to learn about place values using money.

2. Do you see the 2 columns labeled pennies and dimes on your page?

3. These 2 columns also represent the place values for ones and tens.

4. Let's start by saying the first number out loud. [46]

5. Next, we will separate this number into 2 columns.

6. Say the money values: __ [46] is equal to __ [4] dimes and __ [6] pennies.

7. Say the place values: __ [46] is equal to __ [4] tens and __ [6] ones.

8. Now, let's complete this activity together.

9. Once we have finished, I would like you to review the entire page out loud, for both money and place values.

Place Values Using Money: Ones, Tens, & Hundreds

1. Let's continue working with place values using money.

2. Do you see the 3 columns labeled pennies, dimes, and dollars on your page?

3. These 3 columns also represent the place values for ones, tens, and hundreds.

4. Let's start by saying the first number out loud. [159]

5. Next, we will separate this number into 3 columns.

6. Say the money values: __ [159] is equal to __ [1] dollar, __ [5] dimes, and __ [9] pennies.

7. Say the place values: __ [159] is equal to __ [1] hundred, __ [5] tens, and __ [9] ones.

8. Now, let's complete this activity together.

9. Once we have finished, I would like you to review the entire page out loud, for both money and place values.

Completing Fact Families

1. Understanding fact families will help you learn basic addition and subtraction facts.

2. There are four sections on your page. Let's begin with #1.

3. Do you see the numbers inside the colored boxes? [1, 2, 3]

4. Using these 3 numbers, we are going to set up a fact family.

5. The fact family will include 2 addition equations and 2 subtraction equations.
   addition: [1 + 2 = 3] [2 + 1 = 3] subtraction: [3 – 1 = 2] [3 – 2 = 1]

6. When working on addition equations, the sum or answer is the highest number; the other 2 numbers just exchange positions.

7. When working on subtraction equations, the beginning number is the highest; the other 2 numbers just exchange positions.

8. Be sure to use your dots when filling in the answers for each equation.

9. We will complete this activity together.

10. After finishing, please review each set of fact families out loud.

Teaching Tips

1. Help students discover patterns as they progress through the 4 sections.

2. With your support, students may create their own fact families.

Writing Fact Families

1. Let's continue working with fact families.

2. There are 2 sections on your page. Let's start with #1.

3. Do you see the numbers inside the colored boxes? [1, 2, 3]

4. Using these 3 numbers, we are going to set up a fact family.

5. The fact family will include 2 addition equations and 2 subtraction equations.
   adition: [1 + 2 = 3] [2 + 1 = 3] subtraction: [3 - 1 = 2] [3 - 2 = 1]

6. On your page, there are blank boxes for you to write out your 4 equations.

7. In the first equation, a box is outlined in **red**. Write in the same number found in the corresponding **red box** above. [1]

8. Continue filling in the boxes for the remaining equations. Be sure to use the same color-coding method at the beginning of each equation.

9. We will complete this activity together.

10. After finishing, please review each set of fact families out loud.

Teaching Tips

1. Help students discover patterns as they progress through the sections.

2. With your support, students may create their own fact families.

1. We are going to start today's lesson with an addition equation.

2. There are 2 ways we can solve this problem. We will try both.

3. Let's begin with #1:

   • Using our dot system, say and touch the first number __ . [5]

   • Do you see the dots next to the number __ ? [4]

   • Add these dots by counting upward as you say and touch each dot.
     [6, 7, 8, 9]

   • Write the sum or answer in the purple box provided. [9]

   • Now, say the finished equation out loud. [5 + 4 = 9]

4. Another way to solve this equation is to use a number line.

   • Place your pointer finger (non-writing hand) on the number __ . [5]

   • Using your pencil tip, count upward as you say and touch the numbers __ on the number line. [6, 7, 8, 9]

   • The sum or answer to this equation should be __ . [9]

   • Now, say the finished equation out loud. [5 + 4 = 9]

5. In #2, the equation pattern changes. The number line will help you create the equation.

   • A green arc begins at the number __ . [3]

   • The green arc then moves across __ numbers. [2]

   • The arc ends on the number __ , which is the answer to our equation. [5]

   • Next, fill in the colored boxes to complete this equation. [3 + 2 = 5]

   • Do not forget to place __ dots inside the black box. [2]

   • Now, say the finished equation out loud. [3 +2 = 5]

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6. Notice #3 sets up the equation for you. The first 2 numbers are already given.

- Using our dot system, say and touch the first number ___ . [7]

- Do you see the dots next to the number ___ ? [3]

- Add these dots by counting upward as you say and touch each dot.
  [8, 9, 10]

- Fill in the sum or answer in the purple box provided to complete the equation.
  [10]

- Let's write the same information on the number line.

- Starting at the number ___ [7], make an arc that moves across ___ [3]
  numbers.

- Your arc should end at the number ___ . [10]

- Place a dot on the number line at the end of the arc. This is the sum or
  answer to the equation.

- Now, say the finished equation out loud. [7 + 3 = 10]

1. We are going to start today's lesson with a subtraction equation.

2. There are 2 ways we can solve this problem. We will try both.

3. Let's begin with #1:

   - Using our dot system, say and touch the first number __ . [6]

   - Do you see the dots next to the number __ . [4]

   - Subtract these dots by counting downward as you say and touch each dot. [5, 4, 3, 2]

   - Write the difference or answer in the purple box provided. [2]

   - Now, say the finished equation out loud. [6 - 4 = 2]

4. Another way to solve this equation is to use a number line.

   - Place your pointer finger (non-writing hand) on the number __ . [6]

   - Using your pencil tip, count downward as you say and touch the numbers __ on the number line. [5, 4, 3, 2]

   - The difference or answer to this equation should be __ . [2]

   - Now, say the finished equation out loud. [6 - 4 = 2]

5. In #2, the equation pattern changes. The number line will help you create the equation.

   - A red arc begins at the number __ . [8]

   - The red arc then moves across __ numbers. [7]

   - The arc ends on the number __ , which is the answer to our equation. [1]

   - Next, fill in the boxes to complete this equation. [8 - 7 = 1]

   - Do not forget to place __ dots inside the black box. [7]

   - Now, say the finished equation out loud. [8 - 7 = 1]

6. Notice #3 sets up the equation for you. The first 2 numbers are already given.

- Using our dot system, say and touch the first number. [7]

- Do you see the dots next to the number ___ ? [2]

- Subtract these dots by counting downward as you say and touch each dot. [6, 5]

- Fill in the difference or answer in the purple box provided to complete the equation.   [5]

- Let's write the same information on the number line.

- Starting at the number ___ [7], make an arc that moves across ___ [2] numbers.

- Your arc should end at the number ___ . [5]

- Place a dot on the number line at the end of the arc. This is the difference or answer to the equation.

- Now, say the finished equation out loud. [7 – 2 = 5]