## New Skills / Concepts

- Understand horizontal and vertical lines
- Begin memorizing $8+9=17$ and $9+8=17$


## Class Preparation

+ New Flash Cards: Move 8+9=17 and 9+8=17 from Unused Facts to New Facts.
+ Move CC Flash Cards from Once a Day to Thursday.
+ Move FF Flash Cards from New Facts to Once a Day.


## Meet With Students

## 123

## My Counting Book Activities

- Complete row for 961 to 970
- Count orally 958 to 970


## Enrichment Activity

If we wanted to find out how much your baby brother weighs, would we weigh him in feet? no How would we weigh him? scales, to see how many kilograms (pounds) Would we take his temperature with a ruler to see how many centimetres his temperature is? no How would we take it? thermometer, to check how many degrees

## Review

- Value of a quarter


## Begin LightUnit Activities

## Title Bar

Have students count the money, add enough pennies to make $\$ 1.66$, and write the amount in the answer box.


$$
8+9=17 \text { and } 9+8=17
$$


(1) Introduce the facts and have students write the sums. Drill for memorization.

## New

## Understanding Horizontal and Vertical

Write a fact horizontally on the board. When a fact is written horizontally it goes from side to side. Say horizontal together.
Write a fact vertically on the board. When a fact is written vertically it goes from top to bottom. Say vertical together.
(2) Assist as needed.


3 Dictate \$.30, \$10.46, \$99.00, \$. 04
$\rightarrow$ Drill flash cards.
$\rightarrow$ Administer Speed Drill 166 (p. 47).
$\rightarrow$ Assign I Can Do This.

## New Skills / Concepts

- Begin memorizing $17-9=8$ and $17-8=9$


## Class Preparation

+ New Flash Cards: Move 17-9=8 and 17-8=9 from UnUSED FACTS to New FACTS.


## Meet With Students

## 128

- 10's, 3 to 103


## My Counting Book Activities

- Complete row for 971 to 980
- Count orally - 969 to 980


## Review

- How many centimeters in a meter
- How many inches in a yard
- Centimeter and inch
- Centimeter and foot
- Meter and yard
- Meter and foot
- How many inches in a foot
- Horizontal and vertical


## Enrichment Activity

Count backward by ten from 37 to 7 . Repeat with other examples.

Now subtract 10. What is ten less than 14? 4 What is ten less than 38? 28 Continue until students can answer readily.

Write the following problems on the board vertically. $10-10=, 14-10=, 32-10=, 46-10=$, $85-10=, 69-10=$. Have students find the answers by counting back 10 .

## Begin LightUnit Activities

## Title Bar

Count the hundreds group, stacks of tens, and ones in each set. Write an addition problem and add to find how many. Don't forget to carry if you need to. What is the answer? 167


$$
17-9=8 \text { and } 17-8=9
$$

(1) Introduce these subtraction facts and have students write the differences. Drill for memorization.
$\rightarrow$ Drill flash cards.

$\rightarrow$ Administer Speed Drill 167 （p．47）．
$\rightarrow$ Assign I Can Do This．

Lesson 167
8

$$
\begin{aligned}
& \begin{array}{rrrrrrrr}
16 & 9 & 14 & 15 & 7 & 14 & 16 & 15 \\
+8 & +7 & -6 & -7 & +8 & -7 & -7 & -6 \\
\hline-8 & =8 & \overline{-8} & \overline{75} & \overline{7} & \overline{9} & \overline{9}
\end{array} \\
& 9 \text { Use a \$ and a. } \\
& 69 \mathrm{c}=\$ .69 \\
& 828 \mathrm{c}=\$ 8.28 \\
& 300 \mathrm{c}=\$ 3.00 \\
& \text { (10) Write }<,>\text {, or }=\text {. } \\
& \text { 15-8+4 < } 12 \\
& 15 \text { 目 } 6 \\
& 13-8 \leq 6
\end{aligned}
$$

（1）

（i）
$8+8=\underline{16} \quad 13-7=\underline{6}$

$6+5=$ 平 $3+8=$ 五 $\quad 7+5=$ 巫 $\quad 6+6=$ 耳2
$4+6=\underline{\square Q} \quad 5+5=\underline{\square 0} \quad 7+4=\square \quad 5+4=\frac{\square}{47}$
$14-5=\underline{9} \quad 9+6=75$
$7+9=\underline{6} \quad 17-9=\underline{8}$
$15-8=7 \quad 8+9=77$


Lesson 168
（Pages 33－35）

New Skills／Concepts
－No new skills／concepts

## Class Preparation

－Meterstick
＋Flash Cards：No new facts

## Meet With Students

## 128

－Even numbers 78 to 100
－Odd numbers to 19
－Odd numbers 19 to 1
－Adding 2 to an odd number


## My Counting Book Activities

- Complete row for 981 to 990
- Count orally - 976 to 990


## Begin LightUnit Activities

## Title Bar

How many stop signs do you see in the title bar? 21 How many times do we need to be told to stop before we stop? 21 times? No, we must obey God, our parents, our teachers, and others who are caring for us, the very first time we are told.

How many sides and angles do the stop signs have? 8 Shapes that have 8 sides and 8 angles are called octagons. Since each shape has 8 angles, how many angles do you suppose 21 shapes have? 168 Don't expect students to know unless they guess from the lesson number.

Write the answer in the box.
(1) Assist as needed.

(2) Dictate 36, 11, 670.
$\rightarrow$ Drill flash cards.
$\rightarrow$ Administer Speed Drill 168 (p. 48).
$\rightarrow$ Assign I Can Do This.
Lesson 168

6 Carry as needed. Watch the signs.

| $1 \square$ |  | 514 | 1 |  |
| :---: | :---: | :---: | :---: | :---: |
| 231 | 43 | 33 | 29 | 468 |
| +278 | +526 | +228 | +36 | 36 |
| 509 | -569 | 775 | 65 | 432 |


| 15 | 9 | 16 | 7 | 15 | 7 | 16 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -9 | +6 | -7 | $+9$ | -8 | +8 | -8 | + 6 |
| $\underline{-6}$ | 15 | 9 | 6 | $\underline{7}$ | 15 | 8 | 14 |

8 Circle true or false.
A nickel is worth more than a dime. true false
34


## New Skills / Concepts

- Understand a limit pattern
- Begin memorizing $9+9=18$ and $18-9=9$


## Class Preparation

- Ingredients for recipe of your choice (Optional Activity)
+ New Flash Cards: Move 9+9=18 and 18-9=9
from Unused Facts to New FActs.


## Meet With Students

## 128

- 10's, 4 to 94
- 100's to 1000
- 100's, 1000 to 100
- Odd numbers to 19
- Odd numbers 19 to 1
- 25's to 1000 (Optional Activity)

(2) Do what your teacher tells you.

(3) Mark the O under the correct answer.



## My Counting Book Activities

- Complete row for 991 to 1000
- Count orally - 987 to 1000


## Optional Activity

Help students to follow a recipe. Practice measuring skills. Review measurements as they make the recipe. Assist them with knowing which measuring spoons and cups to use for the various $1 / 2$ and $1 / 4$ measurements. Choose from the recipes below, or choose another recipe.

Chewy Brownie Cookies

- 2/3 cup shortening
- $1 \frac{1}{2}$ cups brown sugar
- 1 tablespoon water
- 1 teaspoon vanilla
- 2 eggs
- $11 / 2$ cups flour
- $1 / 3$ cup cocoa
- $1 / 2$ teaspoon salt
- $1 / 4$ teaspoon soda
- 2 cups chocolate chips

Mix shortening, sugar, water, vanilla, and eggs. Mix in flour, cocoa, salt, and soda. Stir in chocolate
chips. Heat oven to $375^{\circ}$ F. Drop on cookie sheet.
Bake 7 to 9 minutes. Cookies will appear moist.
Cool slightly. Remove from pan.

## Review

- Compare a liter to a quart and gallon


## Begin LightUnit Activities

## Title Bar

Students will write $\$ 1.69$ in the answer box, and draw enough money to make $\$ 1.69$.

## $9+9=18$ and $18-9=9$

Today we will do our last facts. Hold up your stack of flash cards so students can see how many facts they have learned.
(1) Introduce this double and its related subtraction fact. Have students write the answers. Drill for memorization.



## New

## Understanding a Limit Pattern

## 2

What is the first shape? triangle Write how many sides a triangle has beneath the triangle. How many angles does a triangle have? 3
What is the second shape? square Write how many sides.
Write how many sides the third shape has. This shape is called a pentagon.
The fourth shape is called a hexagon. Write how many sides it has.
Write how many sides the fifth shape has. This shape is called a heptagon.
The last shape has the shape of a stop sign. This shape is called an octagon. Write how many sides it has. How many angles does it have? 8
Do you notice the pattern of these shapes? To continue the pattern, how many sides should the next shape have? 9 And the next one? 10 The next? 11
Now think really hard! If we would keep repeating the pattern over and over, getting more and more sides, the shape would look more and more like a what? circle. After students have attempted to answer the question, proceed with the following.
Turn to page 39 of your LightUnit. Find No. 15. Here we have the next shapes of the pattern that we started in No. 2. Do you see how the shapes look more and more like a circle? We could continue adding shapes with one more side. We would soon have a shape with $\mathbf{2 5}$ sides, then $\mathbf{5 0}$ sides, then 100 sides. Today you are going to finish writing your numbers to 1000. Do you think we could make a shape with 1,000 sides? yes Could you have a shape with one million sides? God could make one, but it would be very hard for us. You could keep adding sides forever if that were possible. But it would never quite be a perfect circle. But after you get to about 30 or 40 sides depending how big it is, it all starts looking like a circle to us.
Mathematics was created by a God who is perfect. His perfection goes on forever and ever. He designs even the tiniest of things with perfect detail. God created the big elephant with how many legs? 4 He created the little spider with 8 legs. He created the centipede with many, many legs. Could you create a little bug with 340 legs? There is no limit to God's perfection. It goes on and on and on forever. In Psalm 18:30 it says, "As for God, his way is perfect." Now you may write the number of sides under each shape.

Assist as needed.
(4) Dictate 831, 604, 914.

Write the number that is after 996.
Write the number that is $\mathbf{4}$ hundreds, 8 tens, and 2 ones.


