NUMBER LINE LOCATIONS

4-B4

Objective 4-B: Compare and order amounts of money up to $100.

Sub-Objective: Locate numbers (given in tenths) under $100 on a money number line divided into dime-intervals.

Type of Lesson: Introduce concept/skill

Instructional Method: Individual activity

Description: Students are introduced to a "money number line" drawn in intervals of tenths and use it to locate numbers (given in tenths) under $100.

Materials: Play money ($10 bills, $1 bills, dimes, pennies), decimal place value mats, Activity Sheet 10 (2 pages), Activity Sheet 11 (2 pages)

Procedure

Activty Sheet 10 ($1-$2 number lines)

1. Give each student an activity sheet. Have them look at the number lines on the activity sheet. The number lines go from $1.00 at the left to $2.00 at the right. Explain that they are going to locate amounts of money from $1.00 to $2.00 on the number lines.

2. Give each student a $1 bill and a decimal place value mat. Have them place the $1 bill in the ones' place on the mat. Ask, "How much money do you have?" ($1.00) Say, "Look at the *first* number line. Where do you see $1.00 on the number line?" After students point to the $1.00 on the number line, help them mark a small dot at $1.00 where the vertical line meets the horizontal number line. Say, "The number line shows a mark at $1.00."

3. Give each student a dime. Have them place the dime in the tenths' place on their mats. Ask, "How much money do you have now?" ($1.10) On the *second* number line, have students find $1.10 and mark a dot at $1.10. Say, "The number line shows a mark at $1.10."

4. Give each student another dime. Have them place the dime in the tenths' place on their mats. Ask, "How much money do you have now?" ($1.20) On the *third* number line, have them find $1.20 and mark a dot at $1.20. Say, "The number line shows a mark at $1.20."

5. Continue in that manner until you get to the *tenth* number line. Give students another dime. Have them place the dime in the tenths' place on their mats. Ask, "How many dimes do you have in the tenths' place? (10) Say, "Trade your 10 dimes for a $1 bill. Place the $1 bill in the ones' place on your mat." Ask, "How much money do you have now?" ($2.00) Have students find $2.00 on the number line and mark a dot at $2.00. Say, "The number line shows a mark at $2.00."

6. Call students' attention to the small number line at the bottom of the second page. Help them see that it is the same number line as the number lines they have marked, only much smaller. Because it is so small, there is no room to write labels for the dimes. Repeat steps 2-5, helping students locate and mark the amounts on the small number line.

Activty Sheet 11 ($0-$100 number line)
Follow the directions on Activity Sheet 11 to prepare the $0-$100 number line.

7. Take some time to orient students to the $0-$100 number line. Show them the $1-$2 portion of the number line with which they are familiar. Explain that the number line goes in similar $1 intervals, with the small lines indicating dimes. Look at one interval and count with them on the number line from one whole dollar to the next. For example, $40.00, $40.10, $40.20, $40.30, . . . $40.90, $41.00.

8. At this point, students should be ready to locate amounts of money on the number line. If necessary, have them count out play money on the decimal place value mat. However, as they practice with more and more numbers, encourage less and less reliance on using play money.

Use simple amounts for students' initial work on this large number line and progress to more complex amounts. Here is a suggested sequence of numbers to choose. Choose several numbers for each category.

a. whole dollar amounts, such as $26.00
b. dollars and 10 cents, such as $13.10
c. dollars and 20 cents, such as $1.20
d. dollars and 30 cents, such as $80.30
e. dollars and 40 cents, such as $73.40
f. dollars and 50 cents, such as $12.50
g. dollars and 60 cents, such as $99.60
h. dollars and 70 cents, such as $21.70
i. dollars and 80 cents, such as $3.80
j. dollars and 90 cents, such as $67.90
k. a-j, mixed

Evidence of Learning: The student locates numbers (given in tenths) under $100 on a money number line divided into dime-intervals.