Percents Greater than 100 or Less than 1

6671

Introduction

In this activity, students practice writing numbers as fractions, decimals, and percents.

Grades 6-8

NCTM Number and Operations Standards

- Understand numbers, ways of representing numbers, relationships among numbers, and number systems
- Develop meaning for percents greater than 100 and less than 1

Files/Materials Needed

LPCNT(E).73L, LFRAC(E).73L, LDEC(E).73L,

LPCNT(F).73L, LFRAC(F).73L, LDEC(F).73L

PART 1 WRITING PERCENTS AS FRACTIONS AND DECIMALS

1

a. Launch TI-Navigator™ on the computer and start the session.

b. Have each student log into NavNet on their calculator.

2

a. Use **Send to Class** to *force send* the lists *LPCNT(F)*, *LFRAC(E)*, and *LDEC(E)* to students.

NOTE: The F and E at the end of a list name designate if the list is full or empty. Students will always receive one full list and two empty lists.

b. Instruct students to exit NavNet, open the list editor, and arrow over to the right of L_6 (or the first available unnamed list).

c. Have them press [2nd][STAT], highlight the list called **PCNT**, and press [ENTER] twice. This will paste the list name into the list editor, along with any contents.

d. Have students repeat Steps b and c to load the other two lists. (In Parts 2 and 3, steps b and c will not need to be done.) They should see this screen.

3

a. Tell students to write the equivalent fraction and decimal for each percent under the appropriate list heading. When entering fractions, they should use the [b/c] key as it keeps the number in fractional form rather than converting it to a decimal.

b. When all students have finished, use **Screen Capture** to view their results.

PART 2 WRITING FRACTIONS AS PERCENTS AND DECIMALS

4

a. *Force send* students lists *LPCNT(E)*, *LFRAC(F)*, and *LDEC(E)*.

b. Instruct students to exit NavNet and open the list editor. They should see a full fraction list.

Getting Started with the TI-Navigator™ System: Middle Grades

5

a. Tell students to write the equivalent percent and decimal for each fraction under the appropriate list heading. When entering percents, they should press 2nd [TEXT] and place a quotation symbol before entering the first number and % symbol (see first entry under **PCNT** above).

b. When all students have finished filling in each list, use **Screen Capture** to view their results.

PART 3 WRITING DECIMALS AS PERCENTS AND FRACTIONS

6

a. *Force send* students lists **LPCNT(E)**, **LFRAC(E)**, and **LDEC(F)**.

b. Instruct students to exit NavNet and open the list editor. They should see this screen.

```
PCNT  FRAC  DEC    7
------  ▓▓▓▓▓  .001
              2.25
              2.375
              1.01
              .0025
              4.71
              .00125
FRAC(1) =
```

7

a. Tell students to write the equivalent percent and fraction for each decimal under the appropriate list heading.

b. When all students have finished filling in each list, use **Screen Capture** to view their results.

EXTENSION

8

a. Give students problems such as "Estimate 120% of 80." They should already realize that this answer is found by multiplying 120% and 80. As a result of this activity, they may find it helpful to rewrite 120% as $\frac{6}{5}$ or 1.2. Some students may be able to determine that the exact answer is 96, although it is sufficient for them to find a reasonable approximation to this answer.

b. Have students log back into NavNet and ask them several estimation questions using percents greater than 100 and less than 1. Use **Quick Poll** (with *Open Response*) to collect their answers.