

Rounding on the Number Line

Purpose

Students will practice locating positive decimals and positive mixed numbers on various number lines, as well as practice rounding numbers to different place values.

Materials

For the teacher: number lines on the chalkboard or white board (have several different ones that count by 1s, 10s, 100s, 0.1s, etc.)

For each student: copy of Black Line Master (BLM) *Rounding on the Number Line*; 1-inch wide sticky notes with numbers, such as the following on them: $8\frac{1}{2}$, 40.3, $39\frac{1}{5}$, 22.22, $3\frac{2}{3}$, 4.33, 20.57, $10\frac{4}{5}$, 19.2, $15\frac{3}{4}$, $27\frac{2}{5}$, 33.9, $39\frac{9}{10}$, 44.9, $48\frac{1}{4}$, 40.01; 3" x 5" cards with numbers, such as the following on them (one number per card): $633\frac{2}{3}$, 100, 4,003,000, $\frac{1}{4}$, 598; 3, 4.66, $124\frac{4}{5}$, 80.8, 2,871.77, $\frac{2}{3}$, 3,004, $\frac{9}{10}$, 4.06, 4,002,000, $125\frac{2}{5}$

Activity

A. Introduction

1. Draw a number line on the board counting by 5s, from 0 to 30.
2. Ask students to suggest where to put 0.7, $4\frac{1}{2}$, 15.1, and 24.77.

B. Class Activity: Placing Numbers

1. Begin with a number line that counts by 10s, from 0 to 70. The number line can be constructed from paper, or it could be drawn on a chalkboard or white board. Give each student a sticky note with a whole number, decimal, or mixed number on it. Have students place their sticky notes in the appropriate places on the number line.
2. After all numbers have been placed, discuss where students put the numbers and why they placed them as they did.
3. If students disagree with where a number was placed, have them give their reasons and move the number if necessary.
4. Ask students how they would round each of the given numbers to the nearest 10.

(continued)

MEETING INDIVIDUAL



NEEDS

Give a calculator to students who need help and have them convert fractions to decimals to make comparing them easier. Also have them write the numbers that are being compared using the same number of digits (e.g., $8\frac{1}{2}$ becomes 08.50, $8\frac{2}{3}$ becomes 08.67, and 10 becomes 10.00).

INCORPORATING



TECHNOLOGY

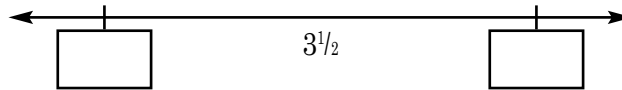
Have students visit the Web site AAA Math, www.aaamath.com/grade5.html. Ask them to follow the links to Fractions or Decimals for continued practice and enrichment.

Standards Links
5.1.1, 5.1.3, 5.1.5

Activity (continued)

C. Class Activity: Nearest Pairs

- Write the following list on the chalkboard: $633\frac{2}{3}$, 100, 4,003,000, $\frac{1}{4}$, 598, 3, 4.66, $124\frac{4}{5}$, 80.8, 2,871.77, $\frac{2}{3}$, 3,004, $\frac{9}{10}$, 4; 4.06, 4,002,000, $125\frac{2}{5}$.
- Give each student one of the 3" × 5" cards (see the list of materials).
- Draw a number line on the board with just one number and have the students with the cards from the list that are closest on each side of the number stand beside the number to show that the given number is between those two numbers.



- Repeat step 2 using the following numbers: $600\frac{1}{3}$, $\frac{2}{3}$, 99.5, 3,000, 4.6, $125\frac{4}{5}$, 2.5, and 4,002,333.
- After students come out with their cards, ask the following questions:
 - “What whole number would this round to?”
 - “What number would this round to to the nearest 10?”
 - “What number would this round to to the nearest 100?”

D. Individual Student Activity

- Hand out the BLM *Rounding on the Number Line*.
- Help students get started by doing a few examples from the BLM with them.
- Direct students to finish the BLM on their own.
- Have the students compare answers with each other.

Questions for Review

Basic Concepts and Processes

During the activity, discuss the following questions with your students:



What do you compare to know which number is larger or smaller?



How do you round numbers?



Round $10\frac{4}{5}$ to the nearest 10.



Round 40.01 to the nearest 10.



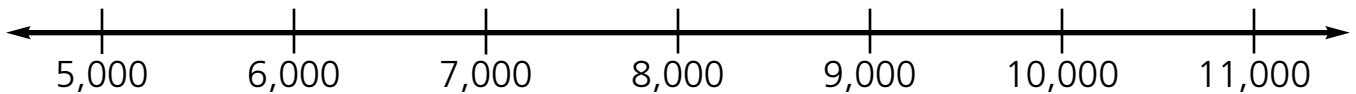
Round $15\frac{3}{4}$ to the nearest 10.

Name: _____

ROUNDING ON THE NUMBER LINE

Show where each number would be placed on the number line by writing it above the line. Then round each number to the place given and write your answer on the line after the number.

Round to the nearest thousand:



7,029 _____ 9,904 _____ 6,496 _____

5,555 _____ 8,699 _____ 10,398 _____

7,501 _____ 10,891 _____ 9,219 _____

Round to the nearest whole number:

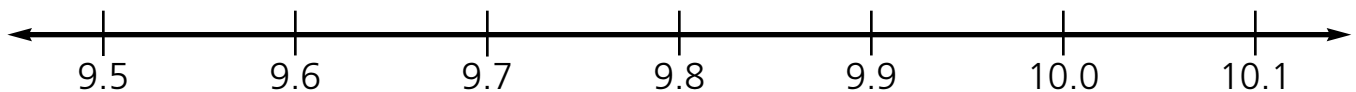


29.7 _____ 30.01 _____ 28.99 _____

25.34 _____ 26.5 _____ 27.82 _____

30.025 _____ 27.459 _____ 25.701 _____

Round to the nearest tenth:



9.56 _____ 10.05 _____ 9.82 _____

9.793 _____ 9.602 _____ 9.955 _____

10.07 _____ 9.899 _____ 9.675 _____

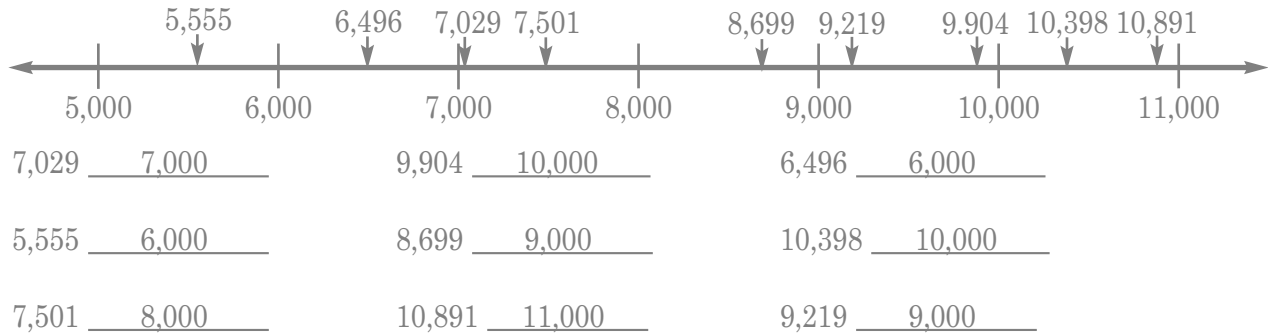
ROUNDING ON THE NUMBER LINE

Teacher Directions

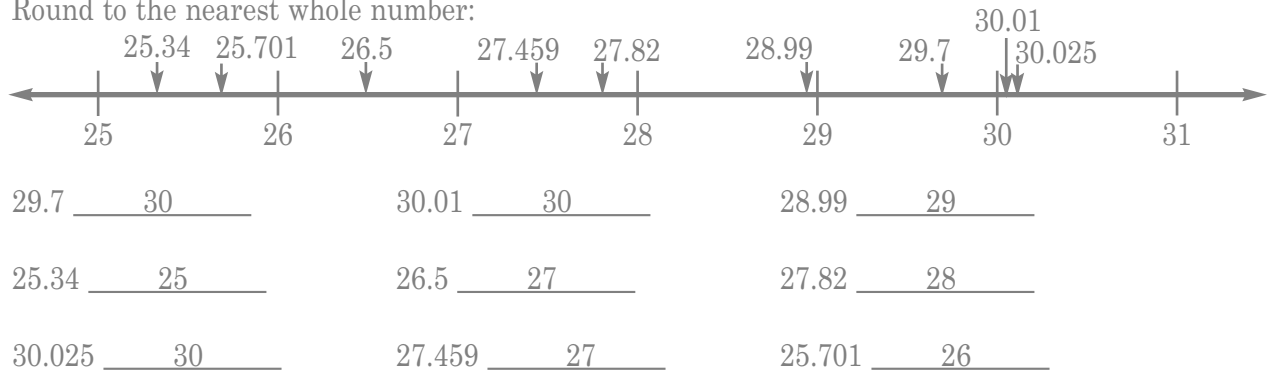
Tell students to place each number on the number line and also to round each number to the accuracy given.

Answer Key

Round to the nearest thousand:



Round to the nearest whole number:



Round to the nearest tenth:

