

Extension

A
Pose patterning problems such as the following:

What is the missing fraction?

(a) $\frac{3}{2}$, $\frac{4}{9}$, $\frac{8}{27}$, ■, $\frac{32}{243}$, ...

(b) $\frac{2}{4}$, $\frac{3}{9}$, $\frac{4}{8}$, $\frac{5}{15}$, ■, $\frac{7}{21}$, ...

(c) $\frac{3}{8}$, $\frac{6}{16}$, $\frac{9}{24}$, ■, ■, ...

(d) 0.6, 1.2, 2.4, 4.8, ■, ■, ...

(e) 0.2, 0.4, 0.8, 1.0, ■, ■, ...

B
Have students create number riddles to exchange with partners. For example:

- I am a fraction.
- I am greater than 0.25.
- I am less than 0.8.
- My denominator is a multiple of 2.
- My numerator is a prime number.

Which of these numbers am I?

$$\frac{1}{8}, \frac{9}{10}, \frac{3}{5}, \frac{3}{8}, \frac{7}{6}, \frac{4}{7}, \frac{5}{6}$$

C
Ask students to write as many decimal numbers as they can using the digits 3, 4, and 5 once each and then have them organize the numbers in order from least to greatest.

Enrichment

A
The hidden picture in the **Examples** section deals with Dewey Decimal Classification. Students could research this system and then create a scavenger hunt where participants use decimal designations to locate and order books.

B
Sports statistics are often written in decimal form. Students could research current statistics for a sport such as baseball (batting averages or ERAs) or hockey (goals against) and order the numbers from greatest to least. Some may wish to compare the baseball statistics they find with record averages listed in the *Guinness Book of Records*

The screenshot shows a software window titled "Ordering Numbers". The instruction reads: "Drag the numbers into order from least to greatest." Below the instruction are five boxes containing the numbers: $1\frac{3}{10}$, $\frac{6}{5}$, 1.201, $\frac{21}{25}$, and 0.8. Below these are five empty boxes for the user to drag the numbers into. At the bottom right of the window are buttons for "Return to Practice Menu", "Previous", and "Next". A taskbar at the bottom shows the current window is "Ordering Numbers" under the "Fractions and Decimals" application.

The screenshot shows a software window titled "Dewey Decimal Classification". On the left is a photograph of a man and a woman looking at books. On the right, the text explains: "Most libraries use the Dewey Decimal system to classify books. In this system, books are divided into the following ten numbered categories." It lists the categories: 000-099: Generalities, 100-199: Philosophy, 200-299: Religion, 300-399: Social Sciences, 400-499: Language, 500-599: Pure Sciences, 600-699: Technology and Applied Sciences, 700-799: The Arts, 800-899: Literature, and 900-999: Geography and History. It also notes that each group is further divided into smaller groups. An "Exit" button is at the bottom right. The taskbar at the bottom shows the current window is "Examples" under the "Fractions and Decimals" application.