

Technology Activity

(Use with Lesson 2-4)

Comparing and Ordering Fractions

You can use the TEST menu on a TI-82/83 to determine whether one fraction is less than, greater than, or equal to another.

Example

Replace the ? in $\frac{6}{7}$? $\frac{7}{8}$ with $<$, $>$, or $=$ to make the sentence true.

Enter: 6 \div 7

$\boxed{2\text{nd}}$ $\boxed{\text{TEST}}$ 3

7 \div 8 $\boxed{\text{ENTER}}$ 0

Enter the first expression.

We will guess that $>$ makes the sentence true.

A result of 0 indicates that our guess was wrong; a result of 1 would indicate that our guess was right.

Trying $<$ shows that it makes the sentence true. Thus, $\frac{6}{7} < \frac{7}{8}$.

Replace each ? with $<$, $>$, or $=$ to make each sentence true.

1. $\frac{8}{7}$? $\frac{9}{8}$

2. $\frac{9}{10}$? $\frac{10}{11}$

3. $\frac{7}{19}$? $\frac{6}{17}$

4. Use a graphing calculator to write $\frac{17}{21}$, $\frac{20}{27}$, $\frac{19}{24}$ in order from least to greatest.

5. You can use a less tedious method to order the set of fractions below from least to greatest.

$$\frac{3}{4}, \frac{5}{8}, \frac{2}{5}, \frac{4}{5}, \frac{4}{9}, \frac{3}{8}, \frac{6}{7}$$

First, clear all lists. Press $\boxed{\text{STAT}}$ 1 and enter the fractions into L1. Then press

$\boxed{\text{STAT}}$ 2 $\boxed{2\text{nd}}$ L1 $\boxed{\text{ENTER}}$. To view the sorted data as fractions, press $\boxed{2\text{nd}}$ L1 $\boxed{\text{MATH}}$

1 $\boxed{\text{ENTER}}$. Use the arrow keys to scroll through the list. Write the fractions in the correct order below.

_____, _____, _____, _____, _____, _____, _____

6. Create a list of at least seven fractions to sort from *greatest to least*. Exchange your list with a partner and sort each other's lists.