Student Activity   Name_____

                                                   Date_____

Comparing Fractions--Which is Greater?

Objective: In this activity, you will compare fractions using the Number Line application on the TI-73 calculator.
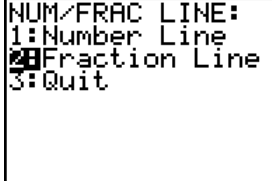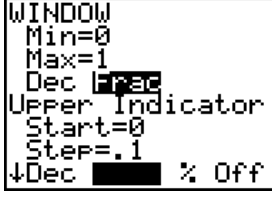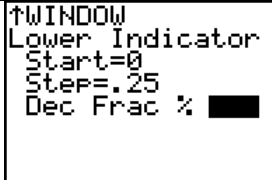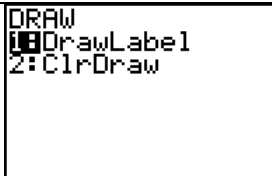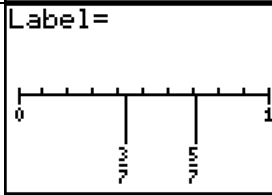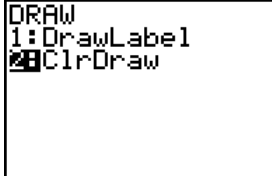
There will be times when you will need to decide if one fraction is greater than another fraction. For example, you may be asked if you would rather eat 2/3 or 3/4 of a pizza. Of course, this would depend upon how hungry you are. Therefore, you will need to have strategies to assist in deciding which fraction is larger. In this activity, you and a partner will explore how to determine the size of a fraction.

1. In *Table 1,* underline the fraction which is greater than the other. Without using drawings or models, provide one or more reasons for your choice. Your reason should rely on what you know about fractions including numerators and denominators.

Table 1

Fractions Underline the greater fraction.	Reason/s
5/7 or 3/7	
4/5 or 4/8	
2/6 or 4/7	
3/5 or 5/9	

Congratulations, you have committed to answers. Now, let's check if your answers are correct. We will use the TI-73 calculator and the Number Line application to assist.

2. Access the Number Line application by pressing APPS.	
2.a. Press ▾ to select the NUMLINE application	**APPLICATIONS** 1:Link… 2:AreaForm 3:CBL/CBR 4:GEOBOARD 5:MathHand **6:**NUMLINE 7:SMILEMth
2.b. Press ENTER twice to get to the NUM/FRAC LINE menu and select 2: Fraction Line.	NUM/FRAC LINE: 1:Number Line **2:**Fraction Line 3:Quit
2.c. Press WINDOW and set **Min = 0**, **Max = 1,Start = 0**, **Step = .1**. Choose **Frac.**	WINDOW Min=0 Max=1 Dec **Frac** Upper Indicator Start=0 Step=.1 ↓Dec ▮▮▮▮ % Off
2.d. Turn off the lower indicator.	↑WINDOW Lower Indicator Start=0 Step=.25 Dec Frac % ▮▮▮
2.e. Press DRAW	
2.f. Press ENTER to select **DrawLabel.**	DRAW **1:**DrawLabel 2:ClrDraw
2.g. Enter 5 b/c 7 and ENTER. The number line will show 5/7. Then enter 3 b/c 7 and ENTER. The number line will also show 3/7. You will see that 3/7 is to the left of 5/7; therefore, 5/7 is greater than 3/7 as the largest of the two numbers is to the right of the smaller number. In *Table 2* below, underline **Yes** if the answer you gave in *Table 1* was correct or **No** if your answer was incorrect. If you underlined **No**, then underline the greater fraction and write a reason for this choice.	Label= 0 ├─┼─┼─┼─┼─┼─┼─┤ 1 3/7 5/7
3. To clear the marks on the number line, press DRAW and select **ClrDraw**.	DRAW 1:DrawLabel **2:**ClrDraw

4. Repeat steps 2.e. through 3 to check your answers for the remaining questions.	

Table 2

Right Answer Underline **Yes** or **No**.	Fractions Underline the greater fraction.	New Reason (if first answer not correct).
Yes or No	5/7 or 3/7	
Yes or No	4/5 or 4/8	
Yes or No	2/6 or 4/7	
Yes or No	3/5 or 5/9	

5. Be prepared to share your answers and reasons with the class.
6. Homework: Complete the following, using information learned during this exercise.

Fractions Underline the greater fraction.	Reason/s
5/8 or 4/6	
5/7 or 5/9	
5/4or 7/8	
4/5 or 3/5	