



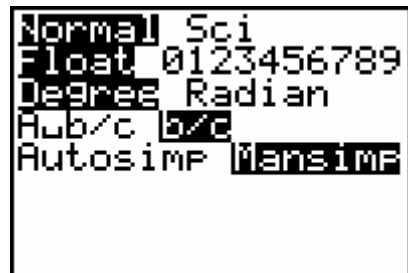
7TH GRADE TI-73 ACTIVITY 20: A FRACTION BY ANY OTHER NAME...

ACTIVITY OVERVIEW:

In this activity we will

- Develop ways to find equivalent fractions

We first need to set our calculators to “Super Fraction Mode” Press the **[MODE]** key and set your screen to look like the one on the right. Arrow to the setting you want and press **[ENTER]** to secure the setting.



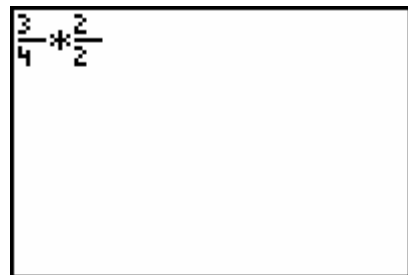
Press **[CLEAR]** to exit the mode settings. Press **[2nd][MEM]**, arrow to **5: Clear Home**, as seen on the right. Press **[ENTER]**. This will clear all previous entries on your calculator.



Now you can find equivalent fractions and test them. Enter the fraction $\frac{3}{4}$ by pressing **[3][b/c][4]** and press the right arrow **[▶]** key. Your screen should look like the one on the right.

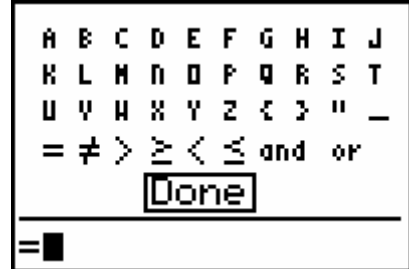


Now multiply by $\frac{2}{2}$. This is the same as multiplying by one. Press **[x][2][b/c][2]**. Make sure your screen looks like the one on the right. Then press **[ENTER]**.

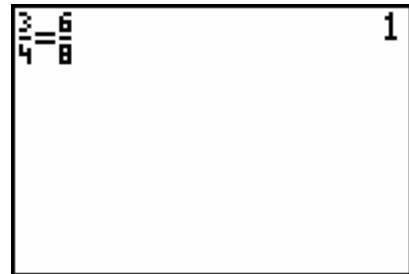


Your result is 6/8. The arrow means your fraction is not completely simplified. That's because you doubled your numerator and denominator.

Now to prove they are equivalent, we will let the calculator decide. Enter $\frac{3}{4}$, use the right arrow and press $\boxed{2nd}[TEXT]$. Arrow down to the = sign and then arrow to Done, as seen on the right. Press \boxed{ENTER} and then enter 6/8 and press \boxed{ENTER} .



When you ask the calculator if two fractions are equal, it can only answer TRUE (1) or FALSE (0).



Now that you know you can multiply fractions to and get equivalent fractions, you can practice your mental math and check them with the tester. Find equivalent fractions for those on the right and test them with your calculator.

- | | |
|------------------------------------|------------------------------------|
| $\frac{2}{3} = \underline{\quad}$ | $\frac{2}{7} = \underline{\quad}$ |
| $\frac{5}{8} = \underline{\quad}$ | $\frac{8}{11} = \underline{\quad}$ |
| $\frac{3}{5} = \underline{\quad}$ | $\frac{3}{8} = \underline{\quad}$ |
| $\frac{4}{9} = \underline{\quad}$ | $\frac{5}{9} = \underline{\quad}$ |
| $\frac{4}{10} = \underline{\quad}$ | $\frac{2}{9} = \underline{\quad}$ |

EXTENSION

It is also possible SOME fractions will have equivalent fractions when you simplify both numerator and denominator. Try this with 6/9. What number divides both 6 and 9?

Enter $\boxed{6}\boxed{\frac{1}{9}}\boxed{9}\boxed{\rightarrow}\boxed{SIMP}$ and enter the number you think evenly divides both 6 and 9. Then press \boxed{ENTER} .



If you picked a number that worked, your fraction changed. If the fraction did not change, $\frac{6}{9}$ is not simplified by the number you picked.