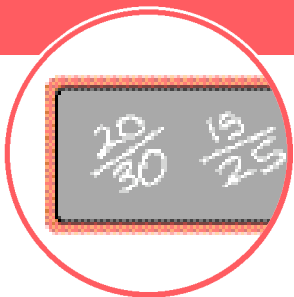


# Finding the GCF

This activity allows you to practice simplifying fractions by dividing the numerator and denominator by the greatest common factor. Write the following fractions on the board, and then have your students simplify them on paper. Then use a TI-73 Explorer™ to check your work.



$20/30$ ,  $15/25$ ,  $8/16$ ,  $27/81$ ,  $28/384$ ,  $21/56$ ,  $22/273$ ,  $70/112$ ,  $180/432$ ,  $405/729$

## Engage

1. Press **MODE**, then use the arrow keys to move down and over to **b/c** and press **ENTER**
2. Arrow to ManSimp (manually simplify) and press **ENTER** (see below)
3. Press **2nd** **QUIT** to return to the Home screen

## Explore

1. Enter the fraction  $70/112$  and press **ENTER**
2. Is the fraction in lowest terms? If not, what prime number is a factor of both the numerator and denominator?
3. Press **SIMP** **ENTER**. The calculator displays the new fraction and the factor that it used to simplify the numerator and denominator
4. Continue the **SIMP** **ENTER** process until the fraction is in lowest terms (the fraction is simplified when the down arrow on the right side next to the fraction disappears)

## Extend

1. To find the GCF, multiply the factors that the calculator used to simplify the fraction
2. In this case,  $2 * 7$  **ENTER**
3. To reinforce this concept, type in the fraction you started with ( $70/112$ ), then press **SIMP** and type the GCF (14) and press **ENTER**
4. Find the GCF of the other fractions listed above

