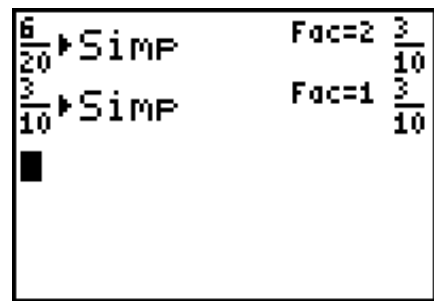
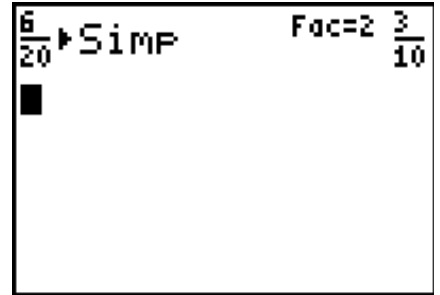
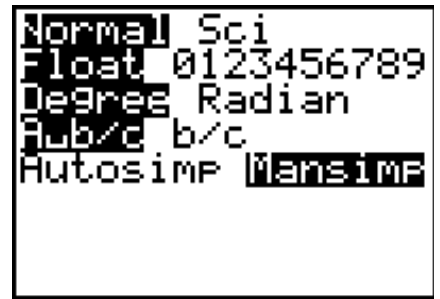


HOW DOES THE CALCULATOR SIMPLIFY FRACTIONS?

1. Press Mode and set up the calculator to manually simplify fractions.
2. Return to the home screen by pressing 2nd MODE (Quit)
3. Enter the fraction $\frac{6}{20}$ by pressing 6 b/c 20.
4. Then press SIMP and ENTER
5. You will notice that calculator has used a factor of 2 to simplify the fraction.
6. If you press SIMP and ENTER again you will notice the calculator has returned the same fraction and told you it used a factor of 1. This means the that $\frac{3}{10}$ is a simplified fraction.
7. Let's see how the calculator simplifies fractions.
8. Enter each fraction in the chart below in your calculator. Press SIMP to simplify the fraction and record the factor that was used. Continue to press SIMP until you know that the fraction is completely simplified.
9. After each fraction is completely simplified, determine and record the greatest common factor from the list of factors.



Starting Fraction	Factor Used	Simplified Fraction	Factor Used	Simplified Fraction	Factor Used	Simplified Fraction	Greatest Common Factor of the N and D
$\frac{12}{18}$							
$\frac{44}{60}$							
$\frac{42}{54}$							
$\frac{28}{42}$							
$\frac{24}{36}$							
$\frac{30}{60}$							
$\frac{168}{210}$							
$\frac{70}{105}$							
$\frac{270}{315}$							
$\frac{105}{195}$							
$\frac{210}{350}$							
$\frac{210}{462}$							

Study your chart carefully. Study the shaded columns. What numbers does the calculator use to simplify these fractions?

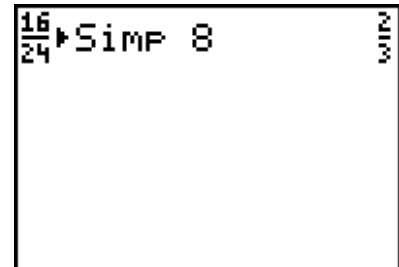
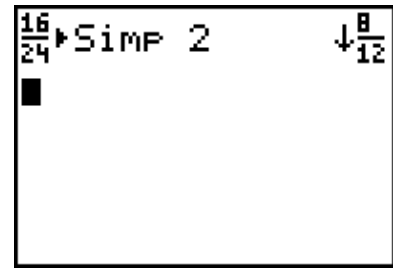
Study the shaded columns. What do you notice about the order in which the factors are chosen?

How can you determine the greatest common factor of the numerator and denominator?

THINKING ABOUT THE GREATEST COMMON FACTOR

Try to simplify with the Greatest Common Factor.

1. Enter the fraction $\frac{16}{24}$ by pressing 16 b/c 24.
2. Then press SIMP but before you press ENTER type in what you believe the greatest common factor is for 16 and 14. Then press ENTER.
 - A. If the your answer on the right is preceded with an **arrow** then you did not choose the greatest common factor. You must try again.
 - B. If your answer on the right is not preceded by an arrow you used the greatest common factor.
3. See how many of the fractions you can simplify in one step.
4. Record your points are the end of each line. You points equal the number of times you need to press Simp on each line.



Starting Fraction	Greatest Common Factor	Simplified Fraction	Second Greatest Common Factor	Simplified Fraction	Third Greatest Common Factor	Simplified Fraction	Points Scored
$\frac{18}{48}$							
$\frac{27}{36}$							
$\frac{56}{72}$							
$\frac{24}{60}$							
$\frac{48}{56}$							
$\frac{40}{100}$							
$\frac{42}{48}$							
$\frac{48}{64}$							
$\frac{36}{72}$							
$\frac{48}{84}$							

Homework Assignment:

Write 5 fractions that all simplify to $\frac{3}{4}$. Describe the greatest common factor that would be used to simplify each fraction to $\frac{3}{4}$.

Write 5 fractions that all simplify to $\frac{2}{3}$. Describe the greatest common factor that would be used to simplify each fraction to $\frac{2}{3}$.

Simplify each of the following fractions using the greatest common factor.

- Always check to see that your answer is completely simplified.
- If you find your answer can be simplified, try to find the greatest common factor when you simplify the second time.

$$\frac{56}{84} =$$

$$\frac{36}{96} =$$

$$\frac{112}{144} =$$

$$\frac{60}{220} =$$

$$\frac{90}{144} =$$