Using some of the TI-*n*spire's built-in functions   Name: _____
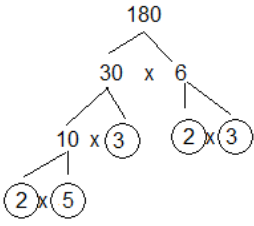
The TI-nspire has a lot of built-in functions that can save a lot of time. You will be learning some today.

1. First we'll look at how to get the calculator to **convert a fraction to a decimal**. Turn your calculator **on**.	
2. Press **A** to select **Calculate**.	
3. Type in the fraction $\frac{3}{8}$ and press **enter**.	Remember how? Hit **Ctrl ÷**
4. Press **Menu 2** to select the **Number** menu.	
5. Press **1** for **Convert to Decimal** and press **enter.** Your calculator should return the value **0.375.**	Convert the fractions below to decimals. $\frac{3}{7}$ = _____ $\frac{12}{19}$ = _____ $\frac{4}{9}$ = _____
6. Here's a cool function. Let's take a decimal and turn it into a fraction. Type in the number **.3125** and press **enter**.	
7. Press **Menu 2** to pull up the **Number** menu. Select **2** from this menu to **Approximate to Fraction**. Hit **enter**. Did you get $\frac{5}{16}$? Some functions require the use of the **,** key. It is the key just above and to the right of **enter**.	Approximate the fraction for each decimal below. .32 = _____ .48 = _____ 1.75 = _____ 2.78 = _____
8. Let's look at **remainders**. You know that $24 \div 5$ would be 4 with a remainder of 4. The calculator can be used to find the remainder. Hit **Menu 2 6** and the put in $24,5$ and hit **enter**. The remainder, **4**, should appear on your calculator.	Find the remainder for each problem below. $207 \div 11$ _____ $332 \div 19$ _____ $645 \div 15$ _____ $249 \div 23$ _____

9. Next let's do something really cool. Remember this factor tree stuff?	Factor each problem below.

9. Next let's do something really cool. Remember this factor tree stuff?

Answer: $2^2 \times 3^2 \times 5$

We can do all of this with the calculator!
Hit **Menu 2 3** and then type **180** and hit **enter**.
See the same answer?

Factor each problem below.

120 = _____

150 = _____

400 = _____

315 = _____

840 = _____

---

10. Let's find the least common multiple (**LCM**) of **12** and **30**.

Press **Menu 2 4** to see **lcm()**.
In the () type **12,30 enter**.

You should see **60**. That is the LCM of 12 and 30.

Find the LCM of each pair of numbers below.

20 and 50 _____

25 and 12 _____

17 and 13 _____

50 and 36 _____

---

11. The *n*spire returns fractional answers as improper fractions. There is a function that will change an improper fraction into a mixed number.

Type in $\frac{3}{5} + \frac{19}{2}$ and press **enter**. You should see $\frac{101}{10}$.

---

12. Now, press **Menu 2 7 1** to pull up the **Proper Fraction** function. Instead of retyping the problem, press **ans** to pull up the last answer you found. Hint: **ans** can be found on the (-) key in blue (remember to hit **Ctrl**). Hit **enter**.

Did your calculator give you $10 + \frac{1}{10}$? This is how the *n*spire shows a mixed number. It would be similar to us writing $10\frac{1}{10}$.

Be careful when you type a mixed fraction into the calculator! If you

Convert the following fractions into proper fractions.

$\frac{32}{9}$ = _____

$\frac{49}{5}$ = _____

$\frac{115}{6}$ = _____

$\frac{211}{43}$ = _____

type in $10\frac{1}{10}$ on the *n*spire, the calculator would actually *multiply* the whole number and the fraction instead of adding them. You must put in the **+** sign.	
13. The calculator can **round** numbers. Try this: **Menu 2 8 1** pulls up the Rounding function. Type in **.61267,3** and press **enter**. This makes the calculator round to 3 decimal places. Did you get **0.613**?	Round each number below to the number of decimal places listed. .354214 to 4 places _____ .123432 to 3 places _____ 3.14159 to 2 places _____ 2.23425 to 4 places _____
14. Let's do one last thing from a different menu. Type in **5 x 4 x 3 x 2 x 1** and press **enter**. Did you get **120**? The calculator can do this automatically for you if you tell it the highest number, in this case, **5**. Type **5** then **Menu 5 1** and hit **enter**. What symbol appeared after the 5? _____ This is called a **factorial**, used often in probability.	Find the value of each factorial below. 7! _____ 9! _____ 4! _____ 6! _____
15. That's it for this lesson! Good job!	