9/28/11

3-5: Reducing Fractions

Reducing Fractions to "Simplest Form"

Steps to reducing fractions:

1. Find the biggest number you can think of that goes evenly into both the numerator(top) and the denominator(bottom).
2. Divide both the numerator and the denominator by that number.
3. Repeat these steps until you can't find any more numbers for step 1.

Examples:

$\frac{6}{8} = \frac{6\div2}{8\div2} = \frac{3}{4}$ $\frac{8}{12} = \frac{8\div4}{12\div4} = \frac{2}{3}$ $\frac{28}{35} = \frac{28\div7}{35\div7} = \frac{4}{5}$

Equivalent Fractions:

Use pie graphs or bar graphs to show that $\frac{1}{2} = \frac{4}{8}$ and more.

These are "Equivalent Fractions" because they describe the same part of a whole.

Finding equivalent fractions is like "unreducing." Instead of dividing the numerator and denominator by the same number, we multiply them by the same number. (Refer again to the graphs.)

Examples:

$\frac{3}{4} = \frac{3*2}{4*2} = \frac{6}{8}$ $\frac{3}{4} = \frac{3*3}{4*3} = \frac{9}{12}$ $\frac{3}{4} = \frac{3*7}{4*7} = \frac{21}{28}$ $\frac{3}{4} = \frac{3*10}{4*10} = \frac{30}{40}$

So we can see that $\frac{3}{4} = \frac{6}{8} = \frac{9}{12} = \frac{21}{28} = \frac{30}{40}$