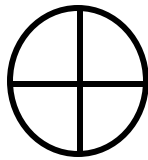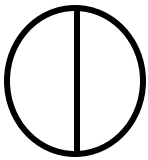# SOL 6.2 – Fractions

The Meaning of Fractions

- A fraction names part of a whole

Ex. $\dfrac{\text{Numerator}}{\text{Denominator}}$ **=** $\dfrac{\text{Part}}{\text{Whole}}$

Equivalences

- All fractions have other fractions that are equal to them.
- Refer to your color coded number lines.
- You can find equivalent fractions by:
  - looking at the size of the fraction
  - multiplying by a number
  - or dividing by a number (GCF)

$$\frac{1 \times 2}{2 \times 2} = \frac{2}{4}$$

$$\frac{8 \div 2}{10 \div 2} = \frac{4}{5}$$

0, ½, and 1 as Benchmarks

- This is a form of estimating fractions.
- Seeing if a fraction is closest to 0, ½, or 1
  - It is close to **0**, if the **numerator is close to 0**. ($\frac{0}{7}$)
  - It is close to **1**, if the **numerator is close to the denominator**. ($\frac{3}{3}$)
  - It is close to **½**, if the **numerator is close to half of the denominator**. Remember that odd denominators will have a numerator of .5   ($\frac{5}{10}$) or ($\frac{4.5}{9}$)

Inequalities

- **<** Less than
- **≤** Less than or equal to
- **>** Greater than
- **≥** Greater than or equal to

Comparing and Ordering Fractions

- Use the benchmarks (0, $\frac{1}{2}$, and 1)
- If the denominators are the same order the numerators.
  ($\frac{1}{8}$, $\frac{2}{8}$, $\frac{3}{8}$, $\frac{4}{8}$, $\frac{5}{8}$, $\frac{6}{8}$, $\frac{7}{8}$, $\frac{8}{8}$)
- If the numerators are the same the smaller the denominator the larger the part. ($\frac{1}{12}$, $\frac{1}{10}$, $\frac{1}{9}$, $\frac{1}{8}$, $\frac{1}{6}$, $\frac{1}{5}$, $\frac{1}{4}$, $\frac{1}{2}$)
- If both the numerators and denominators are different, try the benchmarks first, or change the fractions to decimals by dividing and then compare or order them as decimals.

- ascending - goes up or gets bigger

- Descending - goes down or gets smaller