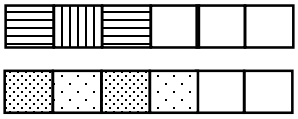
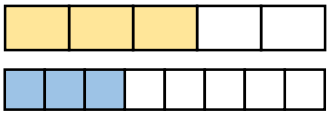
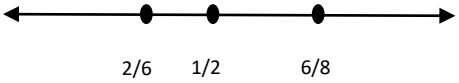
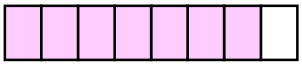
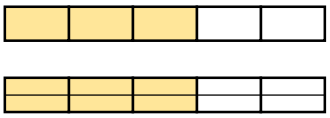
Comparing Fractions

Method	Example
Same Denominator: If the denominators are the same, compare the numerators (when comparing same size wholes).	$\frac{3}{6} < \frac{4}{6}$ 
Same Numerator: If the numerators are the same, compare the denominators. When comparing same size wholes, the larger the denominator, the smaller the piece. The smaller the denominator, the larger the piece.	$\frac{3}{5} > \frac{3}{8}$  These fractions have the same # of parts, but the parts are different sizes.
Less than ½ or more than ½ : Compare to see if a fraction is less or more than ½ (2/4, 3/6, 4/8, 5/10, 6/12, etc.). Place the fraction on a number line.	$\frac{2}{6} < \frac{6}{8}$ 
Unit fractions from one whole: Determine how far away from a whole the fraction is. The larger the denominator, the smaller the piece. Unit fractions close to one whole would be ¾, 4/5, 5/6, 7/8, 9/10, 10/12, etc.	$\frac{7}{8} > \frac{5}{6}$ 7/8 is 1/8 away from a whole.  5/6 is 1/6 away from a whole. 
Find a common denominator: Determine a common multiple of both denominators which can be the new denominator. Multiply each fraction by a representation of 1 (5/5, 3/3, etc.) Or use pictures to show equivalent fractions.  **3/5 = 6/10**	$\frac{2}{3} \bigcirc \frac{3}{5}$ $\frac{2}{3} \times \frac{5}{5} = \frac{10}{15}$ 2/3 and 10/15 are equivalent. $\frac{3}{5} \times \frac{3}{3} = \frac{9}{15}$ 3/5 and 9/15 are equivalent. Since 10/15 > 9/15, then 2/3 > 3/5
Cross Multiply: 1) Multiply first numerator with 2nd denom. 2) Multiply 2nd numerator with 1st denom. 3) Compare numbers. 4) If #1 is larger, first fraction is larger. 5) If #2 is larger, 2nd fraction is larger.	$\frac{2}{3} > \frac{3}{5}$ 1) 2 x 5 = 10 2) 3 x 3 = 9 3) 10 > 9, therefore 2/3 > 3/5 Or multiply denominators to get a common denom. Compare both fractions: 10/15 > 9/15
Convert to Decimals: Divide the numerator by the denominator. Or make 100 the common denominator.	$\frac{3}{4} < \frac{81}{100}$ ¾ = .75 81/100 = .81 .75 < .81 so then ¾ < 81/100