## HELPFUL TIPS FOR OPERATION OF FRACTIONS

Adding Fractions with common/like denominators	Subtracting Fractions with common/like denominators
<ol> <li>First, check if the denominator of both fractions being added are the same.</li> <li>If they are the same, the denominator of your answer will be the denominator of your fractions being added.</li> </ol>	<ol> <li>First, check if the denominator of both fractions are the same.</li> <li>If they are the same, the denominator of your answer will be the denominator of your fractions.</li> <li>Subtract the numerator of the second fraction from</li> </ol>
<ol> <li>Add across – add the numerators of the fractions being added.</li> </ol>	the numerator of the first fraction. 4. Simplify your answer <b>if</b> necessary.
<ol> <li>Simplify your answer if necessary.</li> </ol>	
E.g. <u>https://www.khanacademy.org/math/in-sixth-grade-math/fractions-1/addition-subtraction-fractions/v/adding-fractions-with-like-denominators?gclid=CPGQ6p-R8c0CFYlehgod2ngEfw</u>	E.g. <u>https://www.khanacademy.org/math/in-sixth-grade-</u> math/fractions-1/addition-subtraction-fractions/v/subtracting- <u>fractions</u>
Adding Fractions with different denominators	Subtracting Fractions with different denominators
<ol> <li>First, check if the denominator of both fractions being added are different.</li> <li>If they are different, find the least common multiple (LCM) of both denominators. The LCM will be the denominator of the answer.</li> <li>Convert the fractions being added. Find the factor of the LCM that would change each fraction's denominator to the LCM. Multiply the numerator and denominator of each fraction by its respective factor.</li> <li>Now you may add the fractions and simplify if necessary.</li> <li>E.g. https://www.khanacademy.org/math/in-sixth- grade-math/fractions-1/addition-subtraction- fractions/v/adding-fractions-with-unlike-denominators</li> </ol>	<ol> <li>First, check if the denominator of both fractions being subtracted are different.</li> <li>If they are different, find the least common multiple (LCM) of both denominators. The LCM will be the denominator of the answer.</li> <li>Convert the fractions being subtracted. Find the factor of the LCM that would change each fraction's denominator to the LCM. Multiply the numerator and denominator of each fraction by its respective factor.</li> <li>Now you may subtract the fractions and simplify if necessary.</li> <li>E.g. <u>https://www.khanacademy.org/math/in-sixth-grade- math/fractions-1/addition-subtraction-fractions/v/subtracting- fractions-with-unlike-denominators</u></li> </ol>
Multiplying Fractions	Dividing Fractions : KEEP, CHANGE, FLIP
<ol> <li>If any of the fractions are mixed fractions, convert the fractions to improper fractions.</li> <li>Multiply across – multiply the numerator of the first fraction by the numerator of the second fraction for the numerator of your answer. Then, multiply the denominator of your first and second fraction to find the denominator of your answer.</li> <li>Simplify your answer if necessary.</li> </ol>	<ol> <li>KEEP – Keep the first fraction as a proper/improper fraction.</li> <li>CHANGE – Change the division sign to a multiplication sign.</li> <li>FLIP – 'Flip' the second fraction by changing it to its reciprocal.</li> <li>Now multiply the numerator of the first fraction by the numerator of the second fraction, then multiply the denominator of the first and second fraction.</li> </ol>
Note: You may simplify your fractions before individually before multiplying. E.g. https://www.khanacademy.org/math/pre- algebra/fractions-pre-alg/multiplying-fractions-pre- alg/v/multiplying-fractions	5. Simplify your answer if necessary. E.g. https://www.khanacademy.org/math/arithmetic/fractions/div- fractions-fractions/v/dividing-fractions-example