Name: \_\_\_\_\_

Unit 3: Rational Numbers

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## **3.2 Adding Rational Numbers**

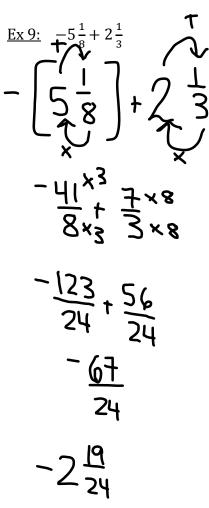
• Adding integers with the <u>SAME</u> signs, <u>ADD</u> and <u>KEEP</u> the sign.

Ex 1: 
$$(-14) + (-5) = -19$$
  
Ex 2:  $23 + 15 = 38$   
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• Adding integers with <u>DIFFERENT</u> signs, <u>SUBTRACT</u> and take the sign of the <u>LARGER</u> digit.

Ex 3: 
$$(-14) + 5 = -9$$
  
 $\frac{14}{-9}$   
Adding fractions you need COMMON DENOMINATORS.  
Ex 5:  $\frac{3}{8} + \frac{1}{2} \times 4$   
 $= \frac{3}{8} + \frac{4}{8}$   
 $= \frac{7}{8}$   
 $= \frac{7}{10}$   
 $= \frac{-7}{10}$   
 $= \frac{-9}{12}$   
 $= \frac{-19}{12}$   
 $= -\frac{1}{12}$ 

• Adding mixed numbers, covert them to <u>IMPROPER FRACTIONS</u> and get <u>COMMON</u> <u>DENOMINATORS</u>. Ex 9:  $-5^{\frac{1}{2}} + 2^{\frac{1}{2}}$ Ex 10:  $-3^{\frac{5}{2}} + (-2^{\frac{5}{2}})$ Ex 10:  $-3^{\frac{5}{2}} + (-2^{\frac{5}{2}})$ 



$$\frac{E \times 10: -3\frac{5}{6} + \left(-2\frac{5}{9}\right)}{-\frac{2}{6}3^{3}} \frac{23}{9} \times^{2}} \frac{-\frac{2}{6}3^{3}}{-\frac{2}{6}3^{3}} \frac{23}{9} \times^{2}}{-\frac{2}{6}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \times^{2}}{-\frac{2}{6}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \times^{2}}{-\frac{2}{6}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \times^{2}}{-\frac{2}{6}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \times^{2}}{-\frac{2}{6}3^{3}} \frac{-\frac{2}{9}3^{3}}{-\frac{2}{9}3^{3}} \times^{2}}{-\frac{2}{9}3^{3}} \times^{2}}$$