2.2b SOLVING EQUATIONS INVOLVING FRACTIONS

Summary: To solve equations, use the addition/multiplication principles to **"Get rid of…"**

1. Parentheses by using the distributive property.

2. Denominators: Multiply each side of equation by common denominator.
   Decimals: Multiply each side of equation by 10, 100, 1000, etc.

3. Like terms on the same side by combining
   Goal: The equation should be no more complicated than: 4x – 8 = -7x + 9

4. Signs (addition or subtraction) by using the addition principle (**add opposites**).
   Get variable terms on one side of the equation and all constant terms on the other side.
   Goal: The equation should be no more complicated than: 4x = -9

5. Coefficients by dividing **by coefficient (BY SAME NUMBER)**. Goal: x = number

1. $\frac{3}{4}t = \frac{2}{3}$

2. $\frac{5}{6}x = 3$

3. $2y - \frac{3}{5} = \frac{1}{2}$

4. $y - \frac{2}{5} = -\frac{1}{3}$

5. $\frac{1}{4} + \frac{1}{2}t = 4$

6. $\frac{1}{4}x + x = -3 + \frac{1}{2}x$

7. $\frac{1}{3} + 2m = m - \frac{3}{2}$

8. $m + \frac{2}{3} = \frac{1}{4}m - 1$

9. $\frac{2}{5}(x - 2) = -3$

10. $\frac{3}{4}(x+1)=2$

11. $\frac{2}{3}(x+1)=5$

12. $\frac{1}{2}+\frac{2}{5}t-1=\frac{1}{5}t+t$

13. $\frac{1}{5}m+\frac{2}{3}-2=m-\frac{2}{5}$

14. 3.5X + 0.8 = 18.24 - 5.9X

15. 0.3X - .24 = 0.36 + .52X