Class Practice on Solving $ax + by = c$ for $y$

1. Solve $3x + y = 5$ for $y$.

2. Solve $4x + 2y = 8$ for $y$.

3. Solve $3x + 2y = 8$ for $y$.

4. Solve $-5x + 3y = 10$ for $y$.

5. Solve $-2x - 4y = 6$ for $y$. 
Solutions

1. 
   \[3x + y = 5\]
   
   \[-3x = -3x\]
   
   So, \(y = 5 - 3x\)
   
   or \(y = -3x + 5 \rightarrow \text{Answer}\)

2. 
   \[4x + 2y = 8\]
   
   \[-4x = -4x\]
   
   So, \(2y = -4x + 8\)  Next, divide both sides by 2.
   
   \[\frac{2y}{2} = \frac{-4x + 8}{2}\]
   
   or \(y = -2x + 4 \rightarrow \text{Answer}\)

3. 
   \[3x + 2y = 8\]
   
   \[-3x = -3x\]
   
   So, \(2y = -3x + 8\)  Next, divide both sides by 2.
   
   \[\frac{2y}{2} = \frac{-3x + 8}{2}\]
   
   or \(y = -\frac{3}{2}x + 4 \rightarrow \text{Answer}\)

4. 
   \[-5x + 3y = 10\]
   
   \[5x = 5x\]
   
   So, \(3y = 5x + 10\)  Next, divide both sides by 3.
   
   \[\frac{3y}{3} = \frac{5x + 10}{3}\]
   
   or \(y = \frac{5}{3}x + \frac{10}{3} \rightarrow \text{Answer}\)

5. 
   \[-2x - 4y = 6\]
   
   \[2x = 2x\]
   
   So, \(-4y = 2x + 6\)  Next divide both sides by \(-4\).
   
   \[\frac{-4y}{-4} = \frac{2x + 6}{-4}\]
   
   or \(y = \frac{1}{2}x + \frac{3}{2}\)
   
   or \(y = -\frac{1}{2}x - \frac{1}{2} \rightarrow \text{Answer}\)