Equations with Variables on Both Sides (Homework)

① $5 + 2x = 9x$ $\boxed{x = 5/7}$

② $-6y + 4 = 1 + 5y$ $\boxed{y = 3/11}$

③ $9 - 5z - 3 = -8z + 7$ $\boxed{z = 1/3}$

④ $\frac{2x}{3} - 1 = 1 + \frac{3x}{4}$ $\boxed{x = -24}$

⑤ $2x - 5 + 7x = 8x + 6$ $\boxed{x = 11}$

⑥ $9y + 1 = -4y + 7 + y$ $\boxed{y = \frac{1}{2}}$

⑦ $-7z + 2 - 5z = 2z$ $\boxed{z = 1/7}$

⑧ $3 - 2x + x = 4x - 6x$ $\boxed{x = -3}$

⑨ $\frac{4x}{5} + \frac{3x}{5} = -10 + \frac{7x}{10}$ $\boxed{x = -20}$

⑩ $7y + 1 = 3y - 5$ $\boxed{y = -3/2}$

⑪ $-3 + 4z = 10z - 3z + 1$ $\boxed{z = -4/3}$

⑫ $-x + 8 + 5x - 6 = 2 - 4x$ $\boxed{x = 0}$

⑬ $-2y - 5y - 1 = 5y + 2y + 2$ $\boxed{y = -3/14}$

⑭ $9 + y + (-3y) = 2y$ $\boxed{y = 9/4}$

⑮ $z - 4 - 7z + 11 = -3 + z$ $\boxed{z = 10/7}$

⑯ $-8x + 2x + 1 = 7x + 3 - 2$ $\boxed{x = 0}$

⑰ $-7 + 4 - 2y - 9y = 7 - y$ $\boxed{y = -1}$

⑱ $10z + 3z + 1 = -9z + 8$ $\boxed{z = 7/22}$

⑲ $-x - x - 2x = -1 - 4 - 5 - 2x$ $\boxed{x = 5}$

⑳ $-\frac{x}{2} + \frac{3x}{4} + 1 = -\frac{x}{4} - \frac{x}{4}$ $\boxed{x = -\frac{4}{3}}$

㉑ $5y + 1 = 2y - 2$ $\boxed{y = -1}$

㉒ $7x - 8x + 10x = 4x - 3x + 7$ $\boxed{x = 7/8}$

㉓ $-20z + 3 - 9 - 4z = 8 - 2z$ $\boxed{z = -7/11}$

㉔ $-2 - 4 - y - 9y = -3y - 2y + 10$ $\boxed{y = -16/5}$

㉕ $-\frac{3x}{8} - \frac{5x}{8} + 1 = 6 - \frac{3x}{4}$ $\boxed{x = -20}$