WS:

Solving equations with Infinite and No Solutions

(Be careful, some of these have a solution!)

1.) $25t = 5(5t + 1)$

$25t = 25t + 5$

$-25t \quad -25t$

$0 = 5$

No Solution $\varnothing$

2.) $7(2p + 1) = 14p + 7$

$14p + 7 = 14p + 7$

$-14p \quad -14p$

$7 = 7$

All real numbers $\mathbb{R}$

3.) $6x + 3 = 6x + 15$

$+6x \quad +6x$

$3 = 12x + 15$

$-15 \quad -15$

$\frac{-12}{12} = \frac{12x}{12}$

$-1 = x$

4.) $3x + 6 = 3(2 + x)$

$3x + 6 = 6 + 3x$

$-3x \quad -3x$

$6 = 6$

All real numbers $\mathbb{R}$

5.) $8v = 2(4v + 2)$

$8v = 8v + 4$

$-8v \quad -8v$

$0 = 4$

No solution $\varnothing$

6.) $2n - 6 = -8n + 14$

$+8n \quad +8n$

$10n - 6 = 14$

$+6 \quad +6$

$\frac{10n}{10} = \frac{20}{10}$

$n = 2$

7.) $5t + 5 = 5t - 4$

$-5t \quad -5t$

$5 = -4$

No solution $\varnothing$

8.) $16p + 8 = 2(8p + 4)$

$16p + 8 = 16p + 8$

$-16p \quad -16p$

$8 = 8$

All real numbers $\mathbb{R}$