

25.

P1: $0 + (0 + 0) = 0$ and $1 + (0 + 0) = 0 + (1 + 0) = 0 + (0 + 1) = 1$ and $1 + (1 + 1) = 1$.

P2: $0 + 0 = 0$ and $0 + 1 = 1 + 0 = 1$.

P3: For 0, $0 + 0 = 0$. For 1, $1 + (-1) = 0$.

P4: $0 + 0 = 0$ and $0 + 1 = 1 + 0 = 1$ and $1 + 1 = 0$.

P5: $1 * (0 * 0) = (1 * 0) * 0 = 0$ and $0 * (0 * 0) = 0$ and $1 * (1 * 0) = (1 * 1) * 0 = 0$ and $1 * (1 * 1) = (1 * 1) * 1 = 1$.

P6: $1 * 0 = 0 * 1 = 0$ and $1 * 1 = 1$.

P7: For 1, $1 * 1^{-1} = 1 * 1 = 1$.

P8: $0 * 1 = 1 * 0 = 0$ and $1 * 1 = 1$ and $0 * 0 = 0$.

P9: $1 * (0 + 0) = 1 * 0 + 1 * 0 = 0$ and $1 * (0 + 1) = 1 * 0 + 1 * 1 = 1$ and $0 * (1 + 1) = 0 * 1 + 0 * 1 = 0$ and $1 * (1 + 1) = 1 * 1 + 1 * 1 = 0$ and $0 * (0 + 0) = 0 * 0 + 0 * 0 = 0$.