Example 1

**Consider the equation:** \( x + y + z = x + p + z \)

Is this equation true? Is it always/never/sometimes true? Explain

Solution:

Repeated occurrences of the same pronumerals represent the same value. In the case of this equation, the \( x \) on the left hand side is equal to the \( x \) on the right hand side and the \( z \) on the left hand side of the equation is equal to the \( z \) on the right hand side of the equation. We can therefore reason that the only time this equation can be true is when \( y = p \).