

Answer on Question #44572 - Math - Algebra

Show that if $y = (1-x)z$, then $1-y = (1-x)(1-z) + x$.

Solution.

$$\begin{aligned} \text{If } y = (1-x)z &\Rightarrow -y = -(1-x)z \Rightarrow 1-y = -(1-x)z + 1 = -(1-x)(z-1+1) + 1 = \\ &= -(1-x)(z-1) - (1-x) + 1 = -(1-x)(z-1) - 1 + x + 1 = (1-x)(1-z) + x. \end{aligned}$$

Answer: if $y = (1-x)z$, then $1-y = (1-x)(1-z) + x$.