61 $\frac{1}{x+2}+\frac{1}{x}=1 \Rightarrow x+(x+2)=x(x+2) \Rightarrow 2x+2=x^2+2x \Rightarrow x^2=2 \Rightarrow x=\pm\sqrt{2}$

Check: $\frac{1}{\sqrt{2}+2}+\frac{1}{\sqrt{2}}=\frac{\sqrt{2}}{\sqrt{2}(\sqrt{2}+2)}+\frac{\sqrt{2}+2}{\sqrt{2}(\sqrt{2}+2)}=\frac{2\sqrt{2}+2}{2+2\sqrt{2}}=1$

$\frac{1}{-\sqrt{2}+2}+\frac{1}{-\sqrt{2}}=\frac{-\sqrt{2}}{-\sqrt{2}(-\sqrt{2}+2)}+\frac{-\sqrt{2}+2}{-\sqrt{2}(-\sqrt{2}+2)}=\frac{2-2\sqrt{2}}{2-2\sqrt{2}}=1$