Wednesday, April 10, 2019

- Warm-up

Try Substitution

- Solve and check the following system:

$$
\begin{aligned}
& (-7,100) y=x^{2}+7 x+100 \\
& y=30-10 x \\
& \begin{array}{rlrl}
y=30-10 x \\
y & =30-10(-7) & y & =30-10(-10) \\
& =30+70 & & =30+100
\end{array} \\
& =30+100 \\
& \begin{array}{ll}
y=100 & y=130 \\
\text { check Solutions }
\end{array} \\
& \left.100=(-7)^{2}+7(7)+100 \quad 100=30-10-7\right) \\
& =49+-49+100 \quad 100=30+70 \\
& \begin{array}{l}
x^{2}+7 x+100=30-10 x \\
+10 x-30-30+10 x \\
\hline x^{2}+17 x+70=0
\end{array} \\
& (x+7)(x+10)=0 \\
& x+7=0 \quad x+10=0 \\
& \begin{array}{cc}
-7-7 \\
x=-7 & x=-10
\end{array} \\
& 130=(-10)^{2}+7(-10)-100 \quad 130=30-10(-10) \\
& =100-78-100 \\
& 130=301100 \\
& 130 \div 130 \\
& 130=130
\end{aligned}
$$

