Let $a_1$, $a_2$, $b_1$, and $b_2$ be real numbers. The period 2 second order linear recurrence system is defined to be the sequence $x_0 = 1$, $x_1 = a_1$, and

\begin{align*}
x_{2n+2} &= a_2x_{2n+1} + b_1x_{2n}, \\
x_{2n+3} &= a_1x_{2n+2} + b_2x_{2n+1},
\end{align*}

for $n \geq 0$. We will show that for $n \geq 4$,

$$x_n = (a_1a_2 + b_1 + b_2)x_{n-2} - b_1b_2x_{n-4}.$$ 

Then we will generalize this result to the period $k \geq 2$ second order linear recurrence system. (Received September 22, 2006)