$$\begin{array}{c|c}
x[n] \\
\hline
30 \text{ kHz}
\end{array}
\begin{array}{c|c}
H_1(z) \\
\hline
\end{array}
\begin{array}{c|c}
\downarrow 5 \\
\hline
6 \text{ kHz}
\end{array}
\begin{array}{c|c}
H_2(z) \\
\hline
\end{array}
\begin{array}{c|c}
\downarrow 3 \\
\hline
\end{array}
\begin{array}{c|c}
\downarrow 15 \\
\hline
\end{array}
\begin{array}{c|c}
\downarrow y[m] \\
\hline
\end{array}$$
(a)