3.2-18) The signal x(t) = sin(0.7πt) cos(0.5πt) is sampled using to yield a discrete-time signal x[n]. Next, x[n] is ﬁltered using an ideal high-pass digital ﬁlter that eliminates all frequencies below the output of which is called y[n]. Finally, y[n] is passed through a perfect reconstruction ﬁlter at the rate . Find a simpliﬁed expression for y(t), the output of the reconstructor. Can this system operate in “real time”?