Name:

Name:

Let *Y*(*t*) = *X*(*t*) + *N*(*t*) be a wide-sense stationary process where *X*(*t*) is the actual signal and *N*(*t*) is a zero-mean noise process with variance  and is independent of *X*(*t*). Find the power spectral density of *Y*(*t*). Explain the significance of this result.