

1. How does having only  $N$  signal measurements place a restriction on a wavelet spectrum?
2. How can the uncertainty principle be used to reduce the number of data elements calculated in a wavelet transform? (Hint: recall the figure with various-sized vertical bars.)
3. What is the reason that a DWT analysis can be viewed as filtering?
4. What type of wavelet information is needed to store a high resolution photograph?
5. Why are the number of smooth components stored in a DWT different than the number of detailed components?