Assignment 2   Advanced Financial Mathematics

1. Consider a standard Brownian Motion W_u. Evaluate
   $E[7W_t - 9W_s]$ for $t > s$.

2. Consider a standard Brownian Motion W_u. Evaluate $E[(11 + 9W_t)^2]$.

3. Consider a standard Brownian Motion W_u. Evaluate $E[(aW_{t-s} + bW_s)W_{t-s}]$
   for $t > s$. Here a and b are constants.

4. Consider a standard Brownian Motion W_u. Evaluate $E[(W_t + W_s^2)^3]$ for $t > s$.

5. Consider a standard Brownian Motion W_u. Evaluate $E[[W_t(W_{2t} + W_{5t})]^2]$.