

In[6]:= **D[8 * lp * lp (Exp[(-33.14517) / (2 * lp)] - 1 + (33.14517) / (2 * lp)) , lp]**

Out[6]= $16 \left(-1 + e^{-16.5726/lp} + \frac{16.5726}{lp} \right) lp + 8 \left(-\frac{16.5726}{lp^2} + \frac{16.5726 e^{-16.5726/lp}}{lp^2} \right) lp^2$

In[7]:= **% /. lp -> 8.53537**

Out[7]= **34.6289**