

Name: _____

1. Express $\sqrt{\frac{1}{16x^5}}$ in the form ax^b where a and b are constants to be determined	
2. Find, in ascending powers of x , the first four terms in the expansion of $(3-2x)^9$.	
3. The points A and B have position vectors $7\mathbf{i} + 2\mathbf{j}$ and $2\mathbf{i} - 5\mathbf{j}$ respectively. (a) Find \overrightarrow{AB} (b) Find $ \overrightarrow{AB} $	
4. Solve the equation $3e^x + 2e^{-x} = 7$. Give your answers in the form $\ln k$	