1 Memorize Power Series

Look up and memorize the power series to fourth order for e^z, $\sin z$, $\cos z$, $(1+z)^p$ and $\ln(1+z)$. For what values of z do these series converge?

2 Tetrahedron

Using a dot product, find the angle between any two line segments that join the center of a regular tetrahedron to its vertices. *Hint:* Think of the vertices of the tetrahedron as sitting at the vertices of a cube (at coordinates (0,0,0), (1,1,0), (1,0,1) and (0,1,1)—you may need to build a model and play with it to see how this works!)