Provide a clear and organized presentation. Show all of your work and completely simplify your answer. Evaluate each of the following limits:

1. $\displaystyle\lim_{h\to 0}\frac{(3+h)^4-81}{h}$

2. $\displaystyle\lim_{x\to 1}\frac{\sqrt{3x^2+2x}-\sqrt{4x+1}}{x-1}$