2. Find a function $f : [0, 3] \to \mathbb{R}$ such that 
   (a) $f$, $f'$ and $f''$ are all continuous, 
   (b) $f$ is a polynomial of degree less than 4 on each of the intervals $[0, 1]$, $[1, 2]$ and $[2, 3]$, 
   (c) $f(0) = 0$, $f'(0) = 1$, $f''(0) = 2$, $f(1) = 3$, $f(2) = 4$ and $f(3) = 5$. 

1. 3.2.1, 3.2.7, 3.2.8.