6.3.3 $f_n'(x) = \frac{1-nx^2}{(1+nx^2)^2}$. Since $\lim f_n = f = 0$, then $f' = 0$. Therefore we are solving $\frac{1-nx^2}{(1+nx^2)^2} = 0$. Since the denominator is strictly positive then we only have to solve for $1 - nx^2 = 0$. This is solved by $x = \pm\sqrt{\frac{1}{n}}$.