Exercise 1 (5 points)
Find the Taylor series for the function $f(x) = \sqrt{1 + x}$ at $a = 3$.

Exercise 2 (5 points)
Find the coefficient of $x^3$ in the Maclaurin series of the function $f(x) = e^x \sin x$. 
Exercise 1 (5 points)
Find the Taylor series for the function $f(x) = \sqrt{2 + x}$ at $a = 2$.

Exercise 1 (5 points)
Find the coefficient of $x^3$ in the MacLaurin series of the function $f(x) = e^x \cos x$. 