1. Find the first four terms of the Talylor series, with $a=0$, for the following function by multiplying two series from the formula sheet.

$$
f(x)=\frac{e^{x}}{1+x^{2}}
$$

2. Find the fourth degree Taylor polynomial, with $a=1$, for the following function.

$$
f(x)=\sqrt{x}
$$

