MaClaurin Series HW Quiz A

For each function given do the following:

a. Write the first **4 terms**, the **general term** and the **Maclaurin(power) series**

b. Take the **derivative of the power series only**

1. $f(x) = \frac{x^6}{1 - x^3}$

2. $f(x) = x^4 \cos\left(x^3\right)$

3. $f(x) = \sin\left(x^6\right)$

For each function given do the following:

a. Write the first **4 terms**, the **general term** and the **Taylor(power) series**

b. Take the **anti-derivative of the power series only**

1. $f(x) = \ln(1 + x^5)$

2. $f(x) = x^5 e^{x^3}$

3. $f(x) = \tan^{-1}\left(x^{10}\right)$