

a)

$$a_0 = A(0)$$

$$a_1 = A'(0)$$

$$a_2 = \frac{A''(0)}{2}$$

$$a_3 = \frac{A'''(0)}{3}$$

b)

$$n! a_n$$

c)

$$f(0) + \sum_{n=1}^{\infty} \frac{f^{(n)}(0) \cdot x^n}{n!}$$