$$(\sum_{k=0}^{n}(a_k))(\sum_{k=0}^{n}(b_k)) = a_1(\sum_{k=0}^{n}(b_k)) + ... + a_n(\sum_{k=0}^{n}(b_k)) = \sum_{j=0}^{n} a_j(\sum_{k=0}^{n}(b_k)) \quad (1)$$

$$\prod_{k=m}^{n} \lambda a_k = \lambda^{n-m+1}(\prod_{k=m}^{n} a_k) \quad (2)$$

$$f : \mathbb{R} \to \mathbb{R} \qquad x \mapsto f(x) \begin{cases} sin(\frac{1}{x}), six \neq 0 \\ k, six = 0 \end{cases} \quad (3)$$

$$|\frac{f(z) - f(z_0)}{z - z_0} - f'(z_0)| < \in \quad (4)$$

$$\Delta P(x,y) = \frac{\partial^2 P}{\partial x^2}(x,y) + \frac{\partial^2 P}{\partial y^2}(x,y) = 2 - 2 = 0 \quad (5)$$

$$\begin{aligned} \lim_{x\to 1} \frac{f(x) - f(1)}{x - 1} &= \lim_{x\to 1} \frac{\sqrt{x} - 1}{x - 1} && (6) \\ &= \lim_{x\to 0} \frac{\sqrt{x} - 1}{(\sqrt{x} + 1)(\sqrt{x} - 1)} && (7) \\ &= \lim_{x\to 0} \frac{1}{\sqrt{x} + 1} && (8) \\ &= \frac{1}{2} && (9) \\ & && (10) \end{aligned}$$