

$$\sin(z) = \frac{1}{2}z - \left(\pi - \frac{5}{2}\right)z^3 + \left(\frac{\pi - 3}{2}\right)z^5 \quad (1)$$

$$= \frac{1}{2}z(\pi - z^2((2\pi - 5) + z^2(\pi - 3))) \quad (2)$$

$$|\sin(z)| = \frac{1}{2}z(\pi - z^2((2\pi - 5) + z^2(\pi - 3)))2^A \quad (3)$$

$$= z(\pi - z^2((2\pi - 5) + z^2(\pi - 3)))2^{A-1} \quad (4)$$

$$z = x \cdot 2^{-n} \quad (5)$$

$$|\sin(x)| = x \cdot 2^{-n}(\pi - x^2 2^{-2n}((2\pi - 5) + x^2 2^{-2n}(\pi - 3)))2^{A-1} \quad (6)$$

$$= x(\pi - x^2 2^{-2n}((2\pi - 5) + x^2 2^{-2n}(\pi - 3)))2^{A-1-n} \quad (7)$$

$$= x(\pi \cdot 2^p - x^2 2^{p-2n}((2\pi - 5) + x^2 2^{-2n}(\pi - 3)))2^{A-1-n-p} \quad (8)$$

$$= x(\pi \cdot 2^p - x^2 2^{p-2n-q}((2\pi - 5)2^q + x^2 2^{q-2n}(\pi - 3)))2^{A-1-n-p} \quad (9)$$

$$= x(\pi \cdot 2^a - x^2 2^b((2\pi - 5)2^c + x^2 2^d(\pi - 3)))2^e \quad (10)$$

$$a = p \quad (11)$$

$$b = p - 2n - q \quad (12)$$

$$c = q \quad (13)$$

$$d = q - 2n \quad (14)$$

$$e = A - 1 - n - p \quad (15)$$