Truncation error → 7^{th} order taylor expansion term:

$$\frac{(mh)^7 f^7(x)}{7!}$$

$$\frac{h^7 f^7(x)}{7!}\left[(-3)^7\left(\frac{-1}{60h}\right)+(-2)^7\left(\frac{3}{20h}\right)+(-1)^7\left(\frac{-3}{4h}\right)+\frac{3}{4h}+1^7\left(\frac{-3}{20h}\right)+3^7\left(\frac{1}{60h}\right)\right]$$

$$= \frac{h^7 f^7(x)}{h\,7!}\left[\frac{3^7}{60}-2^7\left(\frac{3}{20}\right)+\frac{3}{4}+\frac{3}{4}-2^7\left(\frac{3}{20}\right)+\frac{3^7}{60}\right]$$

$$= \frac{h^6 f^7(x)}{7!}\left[\frac{6}{4}-2^8\left(\frac{3}{2^2\cdot 5}\right)+\frac{2\cdot 3^7}{60}\right]$$

$$= \frac{h^6 f^7(x)}{7!}\left[\frac{6}{4}-\frac{(64)(3)}{5}+\frac{3^6}{10}\right]$$

$$= \frac{h^6 f^7(x)}{7!}\left[36\right]$$

$$= h^6 f^7(x)\left(\frac{36}{7!}\right)$$

$$= \boxed{h^6 f^7(x)\left(\frac{1}{140}\right)} \longrightarrow f^7(x) = \frac{d^7 \sin(x)}{dx^7}$$

$$\max_{0\le x\le 1}|f^7(x)| = 2181.29$$

Wolfram Alpha

$$\boxed{\text{MAX Truncation Error} = \frac{2181.29}{140}h^6}$$