Answer on Question #45644 – Math – Calculus

Find

$$\sum_{n=1}^{\infty} \frac{n^5}{1+4\sin(n)+n^7}$$

Solution

Unfortunately, we can't take this sum exactly. But we can use numerical applications. With function $NSum$ of *Mathematica 9.0* we find that

$$\sum_{n=1}^{\infty} \frac{n^5}{1+4\sin(n)+n^7} = 0.822486.$$

Answer: $\mathbf{0.822486}$.