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> a := n→ $\frac{1}{\text{Pi}} \cdot (\text{int}((\text{Pi} + t) \cdot \cos(n \cdot t), t = -\text{Pi} .. 0) + \text{int}((\text{Pi} - t) \cdot \cos(n \cdot t), t = 0 .. \text{Pi}))$ 

$$a := n \rightarrow \frac{\int_{-\pi}^0 (\pi + t) \cos(nt) dt + \int_0^\pi (\pi - t) \cos(nt) dt}{\pi} \quad (1)$$


=> b := n→ $\frac{1}{\text{Pi}} \cdot (\text{int}((\text{Pi} + t) \cdot \sin(n \cdot t), t = -\text{Pi} .. 0) + \text{int}((\text{Pi} - t) \cdot \sin(n \cdot t), t = 0 .. \text{Pi}))$ 

$$b := n \rightarrow \frac{\int_{-\pi}^0 (\pi + t) \sin(nt) dt + \int_0^\pi (\pi - t) \sin(nt) dt}{\pi} \quad (2)$$


=> fourierSum := sum(a(n) · cos(n · t) + b(n) · sin(n · t), n = 1 .. 10)
fourierSum :=  $\frac{4 \cos(t)}{\pi} + \frac{4}{9} \frac{\cos(3t)}{\pi} + \frac{4}{25} \frac{\cos(5t)}{\pi} + \frac{4}{49} \frac{\cos(7t)}{\pi} + \frac{4}{81} \frac{\cos(9t)}{\pi} \quad (3)$ 

=> fourierSuma := Sum(a(n) · cos(n · t) + b(n) · sin(n · t), n = 1 .. 100)
fourierSuma :=  $\sum_{n=1}^{100} \left( -\frac{2(-1 + \cos(\pi n)) \cos(nt)}{\pi n^2} \right) \quad (4)$ 

=> plot(fourierSum, t = -4 · Pi .. 4 · Pi)

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