

$$\begin{aligned} & \text{int}\left(x \cdot \cos\left(\frac{n \cdot \text{Pi} \cdot x}{2}\right), x=0..1\right) + \text{int}\left((2-x) \cdot \cos\left(\frac{n \cdot \text{Pi} \cdot x}{2}\right), x=1..2\right); \\ & \frac{2 \left(n \pi \sin\left(\frac{1}{2} n \pi\right) + 2 \cos\left(\frac{1}{2} n \pi\right) - 2\right)}{n^2 \pi^2} \end{aligned} \quad (1)$$

$$-\frac{2 \left(n \pi \sin\left(\frac{1}{2} n \pi\right) + 2 \cos(n \pi) - 2 \cos\left(\frac{1}{2} n \pi\right)\right)}{n^2 \pi^2} \quad (2)$$

$$\begin{aligned} & \text{simplify}(\%); \\ & -\frac{8 \cos\left(\frac{1}{2} n \pi\right) \left(\cos\left(\frac{1}{2} n \pi\right) - 1\right)}{n^2 \pi^2} \end{aligned} \quad (2)$$

$$\begin{aligned} & a := \text{unapply}(\%, n); \\ & a := n \rightarrow -\frac{8 \cos\left(\frac{1}{2} n \pi\right) \left(\cos\left(\frac{1}{2} n \pi\right) - 1\right)}{n^2 \pi^2} \end{aligned} \quad (3)$$

$$\begin{aligned} & f := x \rightarrow 0.5 + \text{sum}\left(a(n) \cdot \cos\left(\frac{n \cdot \text{Pi} \cdot x}{2}\right), n=1..20\right); \\ & f := x \rightarrow 0.5 + \sum_{n=1}^{20} a(n) \cos\left(\frac{1}{2} n \pi x\right) \end{aligned} \quad (4)$$

> $\text{plot}(f(x), x=-3..3);$

