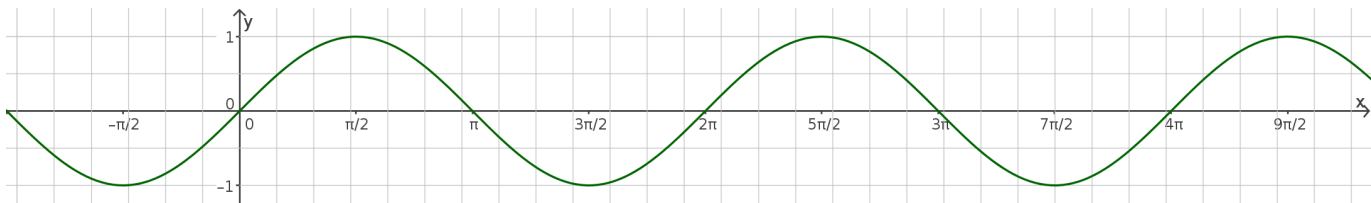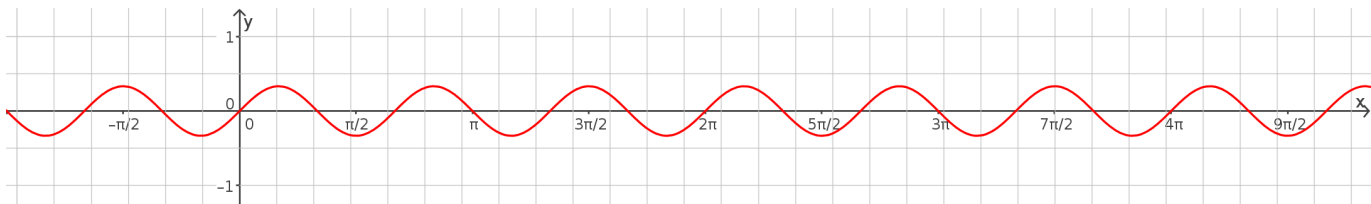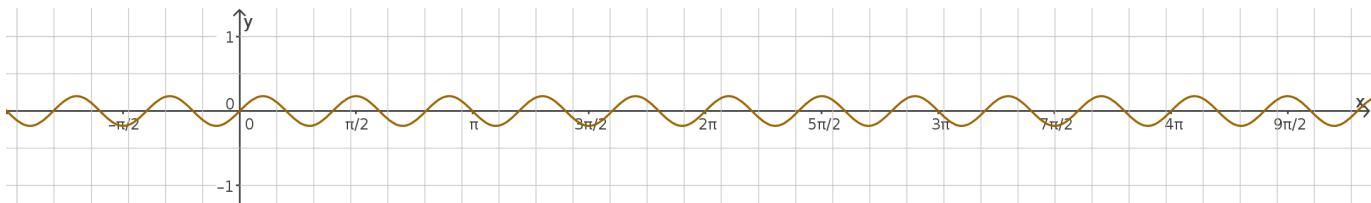$\sin(x)$
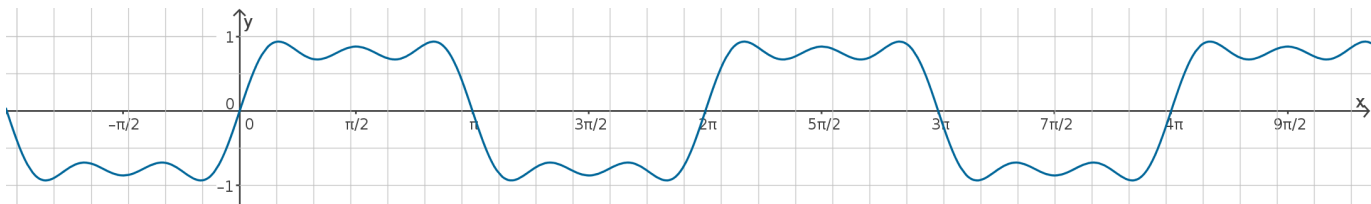
$\dfrac{1}{3}\sin(3x)$
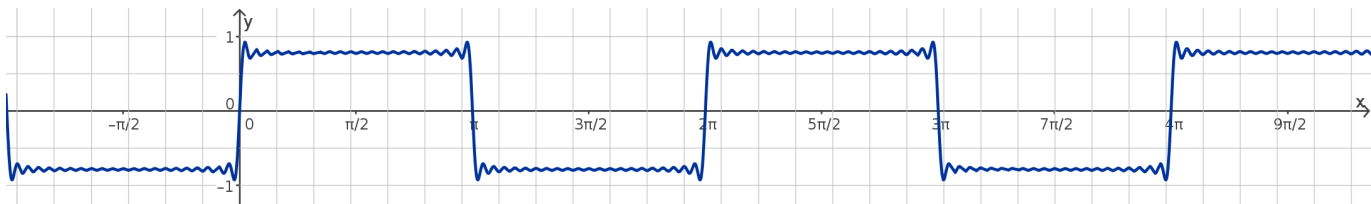
$\dfrac{1}{5}\sin(5x)$

$\sin(x) + \dfrac{1}{3}\sin(3x) + \dfrac{1}{5}\sin(5x)$

$$\sin(x) + \frac{1}{3}\sin(3x) + \ldots + \frac{1}{43}\sin(43x) \qquad = \qquad \sum_{k=1}^{22} \frac{1}{2k-1}\sin\left((2k-1)x\right)$$

$$\sum_{k=1}^{\infty} \frac{1}{2k-1}\sin\left((2k-1)x\right) \qquad \longrightarrow \qquad \text{Rechtecksignal} \qquad \left(\text{Amplitude } \tfrac{\pi}{4}\right)$$