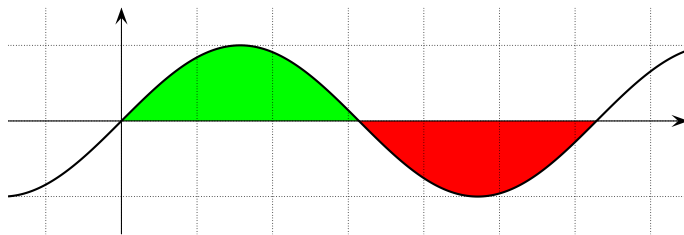


11.4



$$1) \int_0^{2\pi} \sin(x) dx = -\cos(x) \Big|_0^{2\pi} = -\cos(2\pi) - (-\cos(0)) = -1 + 1 = 0$$

$$\begin{aligned} 2) \int_0^{\pi} \sin(x) dx - \int_{\pi}^{2\pi} \sin(x) dx &= \left(-\cos(x) \Big|_0^{\pi} \right) - \left(-\cos(x) \Big|_{\pi}^{2\pi} \right) = \\ &= \left(-\cos(\pi) - (-\cos(0)) \right) - \left(-\cos(2\pi) - (-\cos(\pi)) \right) = \\ &= \left(-(-1) - (-1) \right) - \left(-1 - (-(-1)) \right) = 2 - (-2) = 4 \end{aligned}$$