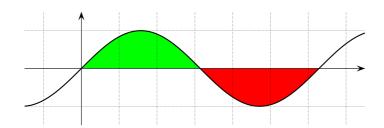
11.4



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

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

Analyse : intégrales Corrigé 11.4