

$$iv) \int_0^5 (x+5)(x+1) dx$$

$$\left[\left(\frac{x^2}{2} + 5x \right) \left(\frac{x^2}{2} + x \right) \right]_0^5$$

$$\left(\frac{5^2}{2} + 5(5) \right) \left(\frac{5^2}{2} + 5 \right) - \left(\frac{0^2}{2} + 5(0) \right)$$

$$\left(\frac{6^2}{2} + 0 \right)$$

$$\left(\frac{25}{2} + 25 \right) \left(\frac{25}{2} + 5 \right)$$

$$(57.5)(17.5) = 656.25 \text{ units}^2$$

$$\frac{2625}{4} \text{ units}^2$$