Question 5 **(6 marks)**

(a) Determine the area between the parabola $y = x^2 - x + 3$ and the straight line $y = x + 3$.

(4 marks)

(b) The area between the parabola $y = x^2 - x - 2$ and the straight line $y = x - 2$ is the same as the area determined in part (a). Explain why this is the case. (2 marks)