1. Find the area of the region bounded above by the graph of \( y = x \), and below by the graph of \( y = x^2 - 4x \). Express your answer in the form of a single fraction.

2. Find the area bounded on the right by \( x = 4 - y^2 \) and on the left by \( x = 3y^2 - 12 \). Express your answer in the form of a single fraction.
3. Find the area captured under both lines $y = x$ and $x + 2y = 3$, and above the curve $y = x(x - 3)$. 