Worksheet: Part 2 Segment 2: Area Bounded Between Two Curves

1. Sketch the curves $y = x^3 - 3$ and $y = 2$. Calculate the area bounded between the curves from $x = 0$ to $x = 1$.

2. Sketch the curves $y = 3 - x^2$ and $y = -1$. Find the points of intersection of the two curves. Calculate the area bounded between the curves and between the points of intersection of the two curves.
3. Sketch the curves \( y = x^2 - 3 \) and \( y = 2x \). Calculate the area bounded between the curves from \( x = -1 \) to \( x = 2 \).

4. Sketch the curves \( y = 3 - x^2 \) and \( y = -2x \). Find the points of intersection of the two curves. Calculate the area bounded between the curves and between the points of intersection of the two curves.