

(1)[5 points] Sketch the graph of $y = |x^2 - 2x|$ and give the x and y intercepts.

(2)[5 points] Let $f(x) = \frac{1}{2x-1}$ and $g(x) = x^2 + 1$. Find $f \circ g$ as well as $g \circ f$ and state the domains for each.

(3)[5 points] Let $F(x) = (x^2 + 2x)^2 + 5\sqrt{x^2 + 2x}$. Find functions f and g such that $F = f \circ g$.