

$$f(x) = \sqrt{x^2 - 4x} - x$$

$$D_f = \left\{ x \in \mathbb{R} / x^2 - 4x \geq 0 \right\} = \left\{ x \in \mathbb{R} / \boxed{x \leq 0 \cup x \geq 4} \right\}$$

$$(f \circ f)(x) = f(f(x)) =$$

$$= f(\sqrt{x^2 - 4x} - x)$$

$$D_{(f \circ f)(x)} = \left\{ x \in \mathbb{R} / \sqrt{x^2 - 4x} - x \leq 0 \cup \sqrt{x^2 - 4x} - x \geq 4 \right\}$$