

**Zadatak 17.** Konstruiraj graf funkcije:

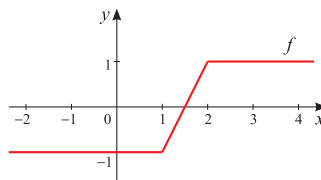
$$1) f(x) = \sqrt{x^2 - 2x + 1} - \sqrt{x^2 - 4x + 4};$$

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

$$x \in [4, 8].$$

**Rješenje.** 1)  $f(x) = |x - 1| - |x - 2|$ ;

	$x < 1$	$1 \leq x < 2$	$x \geq 2$
$f(x)$	$-x + 1 + x - 2 = -1$	$x - 1 + x - 2 = 2x - 3$	$x - 1 - x + 2 = 1$



$$2) f(x) = |\sqrt{x-4} + 2| + |\sqrt{x-4} - 2|.$$

$$x \in [4, 8] \implies f(x) = \sqrt{x-4} + 2 - \sqrt{x-4} + 2 = 4;$$

