Figure 1 The set/reset latch provides hysteresis for the comparator. The circuit provides a noninverting characteristic on the $Q$ output and an inverting characteristic on the $Q'$ output (a and b). Exchange the comparator outputs with the latch inputs for both circuits: The upper comparator drives the reset input, and the lower comparator drives the set input, and you get an inverting characteristic on the $Q$ output and a noninverting characteristic on the $Q'$ output.