

---

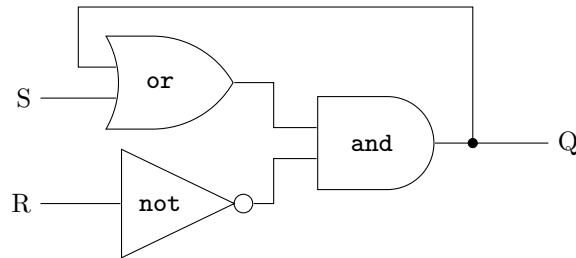
# Warm-Up: Flip-Flops

Prepared by Mark on March 3, 2025.

---

## Problem 1:

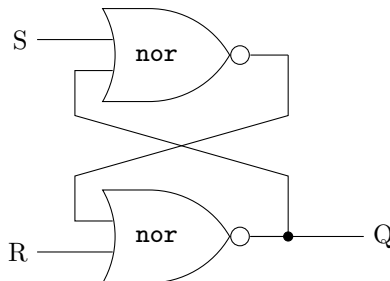
Below is a circuit of logic gates. S and R are input pins, Q is an output pin.  
What does it do?



## Problem 2:

Below is another circuit. How does it work?

*Hint:* `nor` = not or. It works exactly as you'd expect.



**Problem 3:**

Empty circles represent inverted inputs/outputs. This is the reason a **nand** gate looks like an **and** gate with a dot. Pay careful attention to the nand gate in the bottom-left.

What does this circuit do?

