11.7 Basic circuit drawing conventions

Designers follow several conventions when drawing digital circuits.

Figure 11.7.1: Circuit drawing conventions.

Convention	Illustration
Crossing wires only connect at filled circle.	Not a y = ac connected z = bc
Inverter often drawn as circle at gate input.	$a \xrightarrow{b} - b \xrightarrow{-} - y = ab$, $b \xrightarrow{-} - y = ab$,
One output wire splitting is OK. Multiple input wires connecting is not.	a Not OK b Not OK
Input labels are sometimes duplicated to simplify a drawing.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Gate inputs are not labeled (other components may be).	g X y d z y

PARTICIPATION ACTIVITY 11.7.1: Drawing circuits.	
1) Wires connect.	
O True O False	
2) Wires connect. O True O False	
3) The gate's output is	
j	П
a y O True O False	
5) The wiring is OK.	
a b t	
The label y is normally used for a gate output.	
a b y z O True O False	