

Goals

- Recognize and interpret proof language
- Write a direct proof

Announcements

- Have you started working on Programming Assignment 1? Why no?

Direct Proof

Use a direct proof to prove:

If $a|b$ and $b|c$, then $a|c$.

(recall: $x|y \equiv \exists w \in \mathbb{Z}: xw = y$)

If finish, please sit and work on proving:

- $P \rightarrow Q \equiv \neg Q \rightarrow \neg P$.
- Every odd integer is a difference of two squares. (For example, $4^2 - 3^2 = 7$.)