



# BACKWARD SUBSTITUTION



An assignment statement

$x := \text{exp}$

Take the post condition, and substitute

any occurrence of  $x$  by  $\text{exp}$

**EXAMPLE:**

$x := x+1$

$\{x = 6\}$

Substitute  $x$  by  $x+1$  and obtain

$\{x + 1 = 6\}$

So the pre condition is:

$\{x = 5\}$