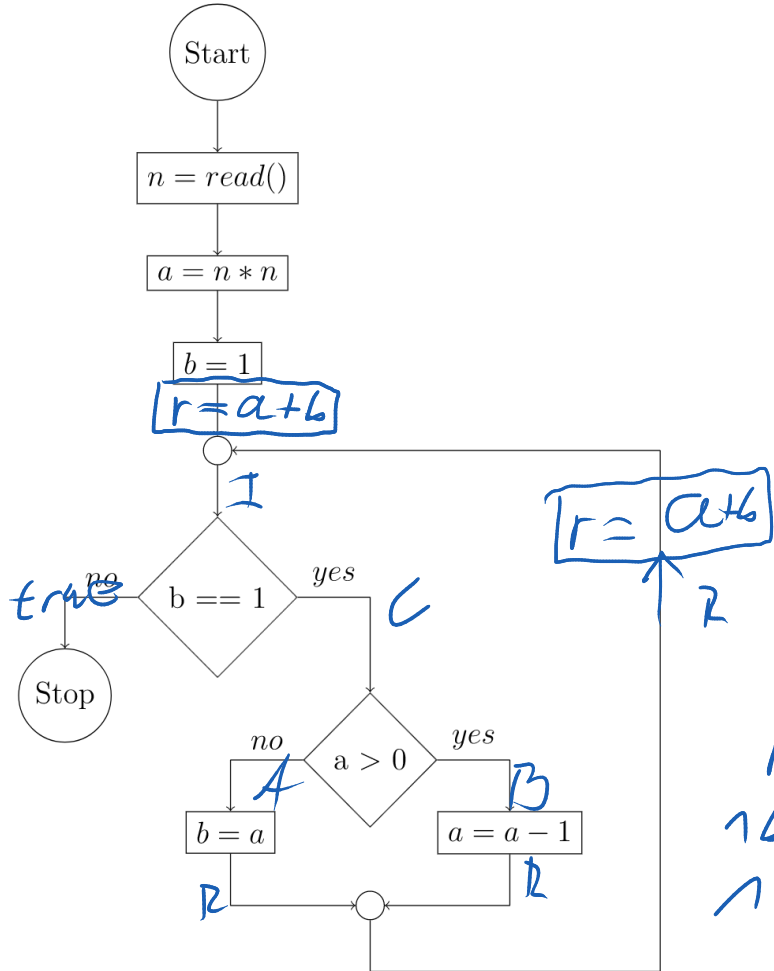


# Prove termination of the following program



$$I \equiv r = a + b \quad \wedge a \geq 0$$
$$R \equiv r > a + b \quad \wedge a \geq 0$$

$$A \equiv r > a + a \quad \wedge a \geq 0$$

$$B \equiv r > a - 1 + b \quad \wedge a \geq 0$$

$$C \equiv \left( (a > 0 \wedge r > a - 1 + b \wedge a \geq 0) \vee (a \leq 0 \wedge r > a + a \wedge a \geq 0) \right) \wedge r \geq 0$$

$$r = a + b$$
$$\wedge b = 1$$
$$\wedge a \geq 0$$

$\checkmark$