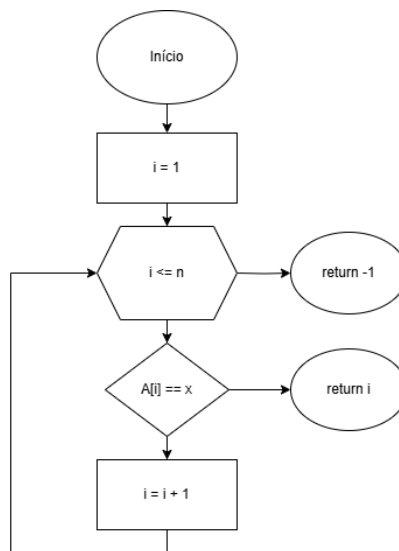


Comparando Eficiência de Algoritmos

Nome: Vinícius Batista Crozato

	Busca Linear	Busca Linear Ordem	Busca Binária
$X \in A$	$4tn$	$4tpx$	$8px - t$
$X = A[1]$	$5t$	$7t$	$9t$
$X = A[n]$	$5tn$	$7tn$	$8tn - t$
$X \notin A$	$5tn + 3t$	$7tn + 3t$	$8tn + 4t$

Busca Linear:



$$X \in A \rightarrow 5px + t - 2t + t = 5px$$

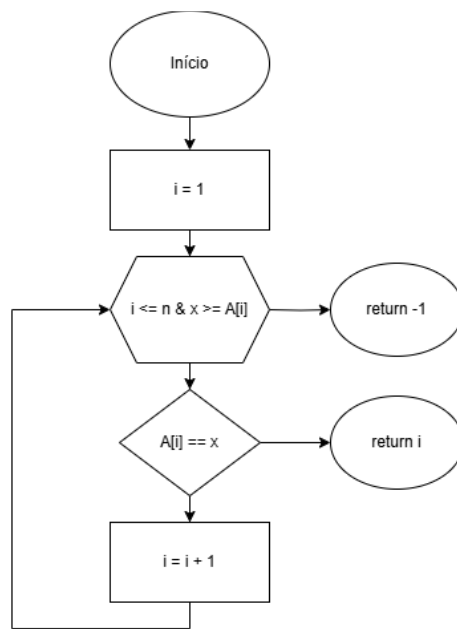
Px – Número de vezes que faz o loop

$$X = A[1] \rightarrow t + t + t + t + t = 5t$$

$$X = A[n] \rightarrow 5tn + t - 2t + t = 5tn$$

$$X \notin A \rightarrow t + 5tn + t + t = 5tn + 3t$$

Busca Linear em Ordem:



$$X \in A \rightarrow t + 7tp_x - 2t + t = 7px$$

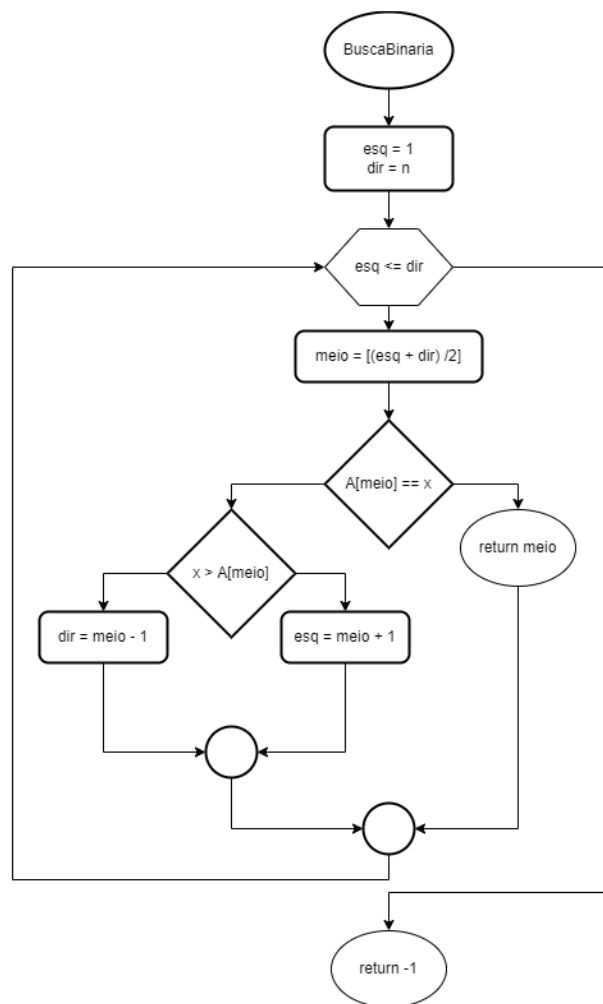
P_x – Número de vezes que faz o loop

$$X = A[1] \rightarrow 7t$$

$$X = A[n] \rightarrow t + 7tn - 2t + t = 7tn$$

$$X \notin A \rightarrow t + 7tn + t + t = 7tn + 3t$$

Busca Binária:



$$X \in A \rightarrow 2t + p_x(t + t + t + t + t + t + t + t) - 4t + t = 8p_x - t$$

P_x – Número de vezes que faz o loop

$$X = A[1] \rightarrow t + t + t + t + t + t + t + t + t = 9t$$

$$X = A[n] \rightarrow 2t + n(t + t + t + t + t + t + t + t) - 4t + t = 8tn - t$$

$$X \notin A \rightarrow 2t + n(t + t + t + t + t + t + t + t) + t + t = 8tn + 4t$$