

```

function sequencial(V,n, c)
1  V[0] = c;
2  i = n;
3  while V[i] != c:
4      i = i - 1;
5  return i;

```

	# instruções	vezes
1	↓	↓
2	↓	↓
3	↓	$t_i + 1$
4	↓	$t_i$
5	↓	↓

$$T(n) = 3 + (t_i + 1) + t_i$$

$$T(n) = 4 + 2t_i$$

Melhor caso:

$$t_i = 0$$

$$T(n) = 4 + 2 \cdot 0$$

$$T(n) = 4$$

Pior caso:

$$t_i = n$$

$$T(n) = 4 + 2 \cdot n$$

Caso médio:

$$T(n) = 4 + 2 \cdot \sum_{i=0}^n \frac{1}{n}$$

$$T(n) = 4 + \frac{2}{n} \cdot \sum_{i=0}^n i$$

$$T(n) = 4 + \frac{2}{n} \left( \frac{n^2 + n}{2} \right)$$

$$T(n) = 4 + \frac{2}{n} \cdot \frac{1}{2} \cdot (n^2 + n)$$

$$T(n) = 4 + \frac{n^2 + n}{n}$$

$$T(n) = 4 + n + 1$$

$$T(n) = n + 5$$