

0 1 2 3 4      0 1 2 3 4.  
[2, 3, 1, 1, 4] [3, 2, 1, 0, 4]

- iterate over nums.
- for each num, we keep updating furthest place we can reach.
- if  $f \geq i$ , it's possible to reach  $i$ .

```
const fn = (nums) => {  
  let f = 0;  
  for (let i = 0; i < nums.length; i++) {  
    if (f >= i) {  
      f = Math.max(f, i + nums[i]);  
    }  
  }  
  return f >= nums.length - 1;  
}
```

$$\begin{array}{c} 0 \ 1 \ 2 \ 3 \ 4 \\ [2, 3, 1, 1, 4] \end{array} \quad \begin{array}{c} 0 \ 1 \ 2 \ 3 \ 4 \\ [3, 2, 1, 0, 4] \end{array} . \quad dp[i] = dp[j] \ \&\& \ (j + nums[j] \geq i)$$

$$j \text{ from } 0 \text{ to } i-1$$

```
const fn = (nums) => {
  const n = nums.length;
```

```
  const dp = new Array(n).fill(false);
```

```
  dp[0] = true;
```

```
  for( let i = 1; i < n; i++) {
```

```
    dp[i] = ( () => {
```

```
      for( let j = 0; j < i; j++) {
```

```
        if( dp[j] && (j + nums[j] >= i)) {
```

```
          return true;
```

```
        }
```

```
      }
```

```
    }
```

```
  }
```

```
  return dp[n-1];
```

```
}
```

Accepted solution,

but there is one more optimization!