

1.

```
proc divide (in v: vector< $\mathbb{Z}$ >, in n:  $\mathbb{Z}$ , out res: Bool) {  
  Pre { $n \neq 0$ }  
  Post { $res = \text{true} \leftrightarrow (\forall i : \mathbb{Z})((i \in v) \rightarrow (i \bmod n = 0))$ }  
}
```

2.

```
proc maximo (in v: vector< $\mathbb{Z}$ >, out res:  $\mathbb{Z}$ ) {  
  Pre {|v| > 0}  
  Post { $res = i \leftrightarrow (\forall j : \mathbb{Z})((i, j \in v) \rightarrow (i > j))$ }  
}
```

3.

```
proc pertenece (in elem:  $\mathbb{Z}$ , in v: vector< $\mathbb{Z}$ >, out res: Bool) {  
  Pre {true}  
  Post { $res = \text{true} \leftrightarrow (\exists i : \mathbb{Z})((0 < i < |v|) \wedge_L (v[i] = \text{elem}))$ }  
}
```