

## → SIL ALGORITHMS & LAMBDA FUNCTIONS 30

→ Lambda function is just a shorter way of writing a function

→ eg: This is a Lambda function to add two numbers:

```
Auto sum = [] (int x, int y) { return x+y; };  
cout << sum(7,4) << "\n" // 11
```

→ ALL-OF → checks if all the elements satisfies the given condition.

→ ANY-OF → checks if any element satisfies the given condition.

→ NONE-OF → checks if none of the elements satisfies the given condition.

They all give a Boolean value in return (0, 1)

VECTOR<INT> V = { 2, -4, 7 };

COUT << ALL-OF(V-BEGIN(), V-END(), [ ]  
(INT x) { RETURN x > 0; } ) << "\n"; // 0

COUT << ANY-OF(V-BEGIN(), V-END(), [ ](INT x)  
{ RETURN x > 0; } ) << "\n"; // 1

COUT << NONE-OF(V-BEGIN(), V-END(), [ ](INT x)  
{ RETURN x > 0; } ) << "\n"; // 0