

1a

0	1	2	3	4	5	6	7	8	9	10
3		0	12			9	70			
98			42							

1

1b

0	1	2	3	4	5	6	7	8	9	10
3		0	12	98	1	9	42	70		

1c

0	1	2	3	4	5	6	7	8	9	10
3		0	12		98	9	70		42	

Failed at 1

53491/100001 = 0.534904651

2 insert O(1)

Rehash O(N²)

Remove O(1)

Contains O(N)

3

int hashit(int key, int tablesize)

{

int i;

i= (ceil((key⁵+5)^½))%tablesize;

return i;

}

```
int hashit( std::string key, int tablesize)
```

```
{
```

```
int i;
```

```
float j;
```

```
j = std::stof(key);
```

```
i= (ceil(j*j* $\pi$ ))%tablesize;
```

```
return i;
```

```
}
```

4

Parallel programming is the process of divvying up and coordinating the processing of tasks for the computer across its processor cores.

5

Two strategies are temporal data partitioning and spatial instruction partitioning