

```

1  for(int i=0; i<N; i++)
2  {
3      float cur_product = 1;
4      node* cur_node = heads[i];
5      while(cur_node !=0 )
6      {
7          float cur_val = cur_node->value;
8          cur_product *= cur_val;
9          cur_node = cur_node->next;
10     }
11     products[i] = cur_product;
12 }

```

Memory access in a
dependency cycle –
non-optimizable

```

bb:
.....
cond0 = icmp cur_node, 0
br cond0, bb3, bb1

```

```

bb1:
cur_node1 = phi [cur_node2, bb1], [cur_node,bb]
cur_product = phi [1, bb], [cur_product1, bb1]
cur_value = cur_node1->value
cur_product1 = cur_product * cur_value
cur_node2 = cur_node1->next
cond1 = icmp cur_node2, 0
br cond1, bb3, bb1

```

```

bb3:
.....

```

Dependency from def-use relationship

Dependency on operand