EXPERIMENT NO:4

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CUDA PROGRAM FOR ADDITION OF TWO LARGE VECTORS

```
#include <bits/stdc++.h>

#define N 10

void add ( int *a, int *b, int *c )

{

        int tid = 0; // this is CPU zero, so we start at zero


        while  (tid < N)

        {

            c[tid] = a[tid] + b[tid];

             tid += 1;  // we have one CPU, so we increment by one

         }

}


int main( void )

{

        int a[N], b[N], c[N];


      // fill the arrays 'a' and 'b' on the CPU

      for (int i=0; i<N; i++)

      {

              a [i] = -i;

              b[i] = i * i;

       }

     add( a, b, c );
```
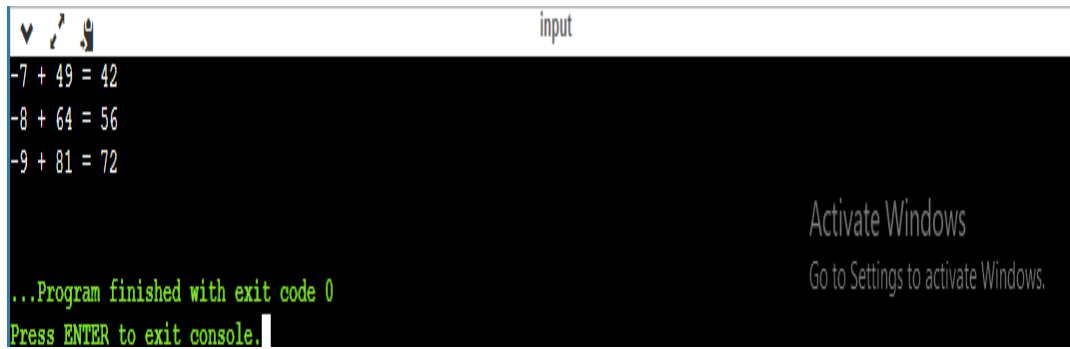
```
// display the results

    for (int i=0; i<N; i++)

  {

        printf( "%d + %d = %d\n", a[i], b[i], c[i] );

  }

 return 0;

}
```

OUTPUT:


```
-7 + 49 = 42
-8 + 64 = 56
-9 + 81 = 72


...Program finished with exit code 0
Press ENTER to exit console.
```