

```
// copy the arrays 'a' and 'b' to the GPU
HANDLE_ERROR( cudaMemcpy( dev_a, a, N * sizeof(int),
                          cudaMemcpyHostToDevice ) );

HANDLE_ERROR( cudaMemcpy( dev_b, b, N * sizeof(int),
                          cudaMemcpyHostToDevice ) );

add<<<N,1>>>( dev_a, dev_b, dev_c );


// copy the array 'c' back from the GPU to the CPU
HANDLE_ERROR( cudaMemcpy( c, dev_c, N * sizeof(int),
                          cudaMemcpyDeviceToHost ) );


// display the results
for (int i=0; i<N; i++) {
    printf( "%d + %d = %d\n", a[i], b[i], c[i] );
}
```