Integer Arithmetic - Definition: Quiz Solution

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There are two ways to declare a 64-bit signed number

- 1- Using the long long int data type
- 2- Using the arbitrary precision data type

These are the two functions that use these data types

1- long long int data types

```
long long int multiplier64bit(long long int a, long long int b) {
#pragma HLS INTERFACE ap_ctrl_none port=return
#pragma HLS INTERFACE ap_none port=a
#pragma HLS INTERFACE ap_none port=b

    return a*b;
}
```

2- Arbitrary precision data type

```
typedef ap_int<64> int64;
int64 multiplier64bit(int64 a, int64 b) {
#pragma HLS INTERFACE ap_ctrl_none port=return
#pragma HLS INTERFACE ap_none port=a
#pragma HLS INTERFACE ap_none port=b

    return a*b;
}
```