Combinational Loop Definition: Quiz Solution

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```
for (i = 10; i > 2; i--) {

#pragma HLS UNROLL

a[i] = b[i] + a[i-1];
}

int i = 0;
while (i < 10) {

#pragma HLS UNROLL

a[i] = b[i] + 2;
i++;
}

#pragma HLS UNROLL

a = a + 2;
b = b+1;
}
```

- 1- The first code can be synthesised into a combinational circuit as it has a static *for*-loop bound that can be determined at compile time
- 2- The second code can also be synthesised into a combinational circuit as it has a static *for*-loop bound that can be determined at compile time
- 3- The third code cannot be synthesised into a combinational circuit as the loop bound determined as run-time based on the value assigned to a and b variables in each iteration.