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Principles of Software Quiz 4

October 18, 2018

10 points total

```
int f(int y) {  
1.   int s = 0;  
    int x = 0;  
2.   while (x<y) {  
3.       x = x+3;  
        y = y+2;  
4.       if (x+y<10)  
5.           s = s+x+y;  
        else  
6.           s = s+x-y;  
        // end-if  
7.   } // end-while  
8.   return s;  
}
```

Question 1. (4pts) In the code above, find an argument **a**, such that **f(a)** achieves 100% statement coverage. If there are no such arguments, write "none".

Question 2. (2pts) 100% statement coverage implies 100% branch coverage.

- (a) true
- (b) false

Question 3. (2pts) Black-box tests test specifications.

- (a) true
- (b) false

Question 4. (2pts) The abstraction function maps abstract values to valid objects defined in the implementation.

- (a) true
- (b) false