

Figure 2 contains a subroutine that returns a value.

Figure 2

```

SUBROUTINE Process(a, b)
c <- a - b
FOR i <- 1 TO 3
    a <- a - c
    b <- b + a
ENDFOR
RETURN b
ENDSUBROUTINE
    
```

a) Complete the trace table below when the subroutine call `Process(4, 3)` is made (you may not need all the rows in the table):

[3 marks]

a	b	c

b) A programmer tries to shorten the subroutine in Figure 2 by replacing the lines:

```

a <- a - c
b <- b + a
    
```

With the line:

```

b <- b + a - c
    
```

Explain whether this change is a mistake or not.

[2 marks]

.....

.....

.....

c) What value is returned by the subroutine call `Process(x, 0)` where  $x$  is any positive integer?

[1 mark]

.....

.....