

Figure A contains a subroutine that returns a value.

Figure A

```

SUBROUTINE Func(a, b)
  c ← 0
  FOR i ← 1 TO b
    c ← c + a
  END FOR
  RETURN c
ENDSUBROUTINE
    
```

a) Complete the trace table below when the subroutine call `Func(2, 4)` is made (you may not need all the rows in the table):

[3 marks]

a	b	c

b) Explain what the purpose of the algorithm in Figure A is.

[2 marks]

.....

.....

.....

c) What value is returned by the subroutine call `Func(x, 1)` where x is any positive integer.

[1 mark]

.....

.....

d) What value is returned by the subroutine call `Func(p, 0)` where p is any positive integer?

[1 mark]

.....

.....