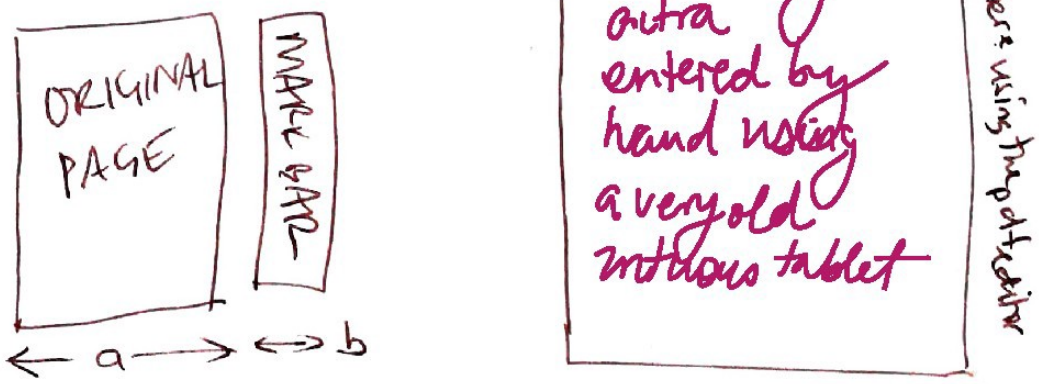
7123456

A1 (a) This is an answer to a question on how to add marking boxes to a pdf. They should appear somewhere over there →

(b) But actually, if we drew a diagram, we might see this.



(c) The maths for the width is trivial

$$w = a + b.$$

OR:

$$\int_0^{a+b} dl = a+b$$

which is what we expect.

7123456

A2 (a) We start with an exponential

$$e^{-\alpha x} = A(x)$$

then make up some conditions to complete the specification, such as

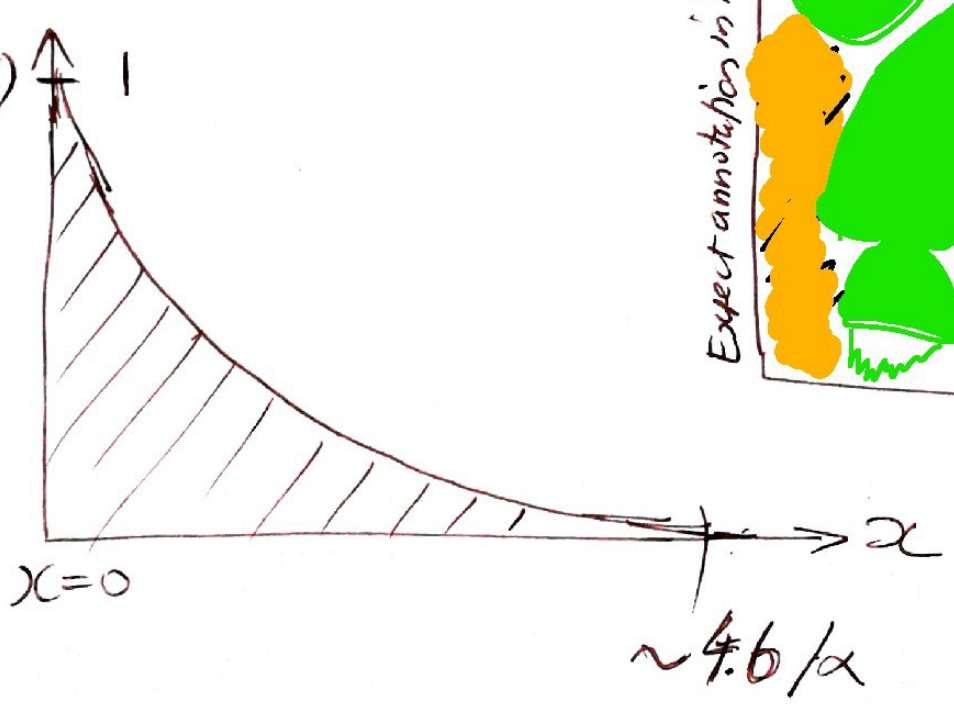
$\alpha \leq \alpha_{max}$, and

$\alpha \geq \alpha_{min}$.

(b) Again, not rocket science that

$\alpha_{min} \leq \alpha \leq \alpha_{max}$

(c)



Expert annotations in this box

Sub-total

1

4

3.5

Mark

section Q A

number 2

mark awarded 7.5

section Q

number

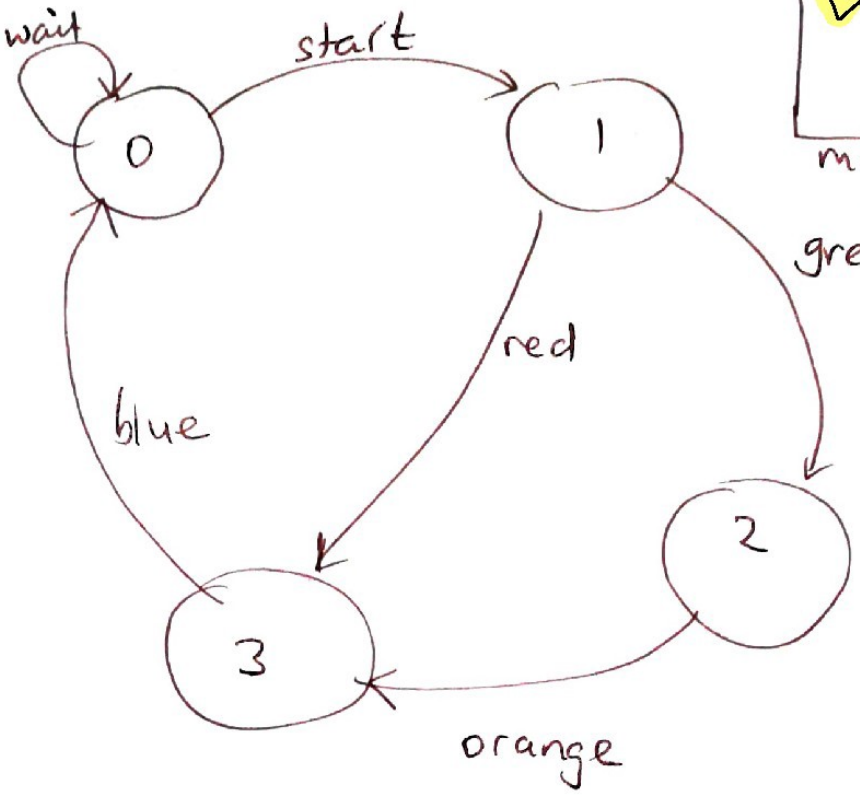
mark awarded

Mark

7 1 2 3 4 5 6

B1

(a)



V = W / 2

more annotation in here

"The coloured states are numbered starting at zero" makes no sense because the edges have colour names, and these represent transitions.

(b) $\overline{A+B} = \overline{A}.\overline{B}$

$A = A(B+\overline{B})$

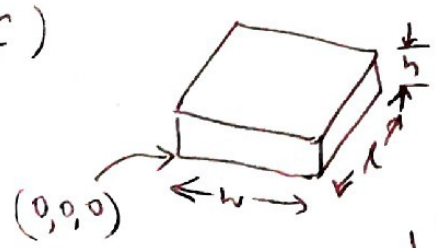
I'll edit/annotate in this box electronically

$\oint V\,dv = 0$

kind of makes it a bit simple.

because I forgot something. oops.

(c)



$\oint_r \psi_r\,dv = \int_0^h \int_0^l \int_0^w \psi(x,y,z)\,dx\,dy\,dz$

$\psi(x,y,z) = x + 2y - z^2$

Sub-total

Mark

X

section Q number

mark awarded

section Q number

mark awarded

Mark