

1 Question 6.1.2

$$Fv(x) = \begin{cases} 1 - e^{-ax} & x \geq 0 \\ 0 & x < 0 \end{cases}$$

$$Fv(x) = \begin{cases} e^{-ax} & x \geq 0 \\ 0 & x < 0 \end{cases}$$

$$\int_0^\infty e^{-ax} = 1$$

$$\left(\frac{e^{-ax}}{-a} \right)_0^\infty = 1$$

$$0 + \frac{1}{a} = 1 \tag{1}$$

$$a = 1$$