

Example: The future lifetimes $T(x)$ and $T(y)$ are independent, and each has the distribution defined by

$$f(t) = \begin{cases} 0.02(10 - t), & 0 < t < 10 \\ 0, & t \geq 10 \end{cases}$$

a) Determine the d.f., survival function and force of mortality of this distribution.

b) Determine the joint p.d.f., d.f., and survival function for $T(x)$ and $T(y)$.

c) Determine the d.f., the survival function the complete expectation and the force of failure for the joint-life status, $T(xy)$.

Example: