

MARKS6
(4, 2)

3. My neighbour and I have identical floodlamps with lifetimes that can be modelled by an exponential distribution with mean $\theta = 400$ hours. If we both burn our lamps for 5 hours each night, find the probability that:
- (a) my floodlamp lasts longer than 100 nights;
 - (b) both floodlamps last longer than 100 nights.

(a)

Probability (a)

(b)

Probability (b)