

14 A random variable X has probability distribution given by $P(X = x) = \frac{1}{860}(1 + x)$ for $x = 1, 2, 3, \dots, 40$.

(a) Find $P(X > 39)$. **[2]**

(b) Given that x is even, determine $P(X < 10)$. **[6]**