Question			Answer	Marks	AO	Guidance	
14	(a)		$P(X > 39) = P(X = 40) = \frac{1}{860}(1 + 40)$	M1	1.1	Attempt at evaluating $P(X = 40)$	
			$= \frac{41}{860}$	A1	1.1		
				[2]			
14	(b)		$P(X \text{ even}) = \frac{1}{860}(20 + (2 + 4 + 6 + ... + 40))$ oe	M1	3.1a	Attempt Σ probabilities of all even values	Numerical sums may be evaluated BC throughout
			$= \frac{1}{860}\left(20 + \frac{2+40}{2} \times 20\right)$	A1	1.1	Correct expression	
			$= \frac{22}{43}$	A1	1.1		
			$P(X = 2, 4, 6, 8) = \frac{1}{860}(4 + 2 + 4 + 6 + 8)$	M1	1.1	Attempt Σ probabilities for $X = 2, 4, 6, 8$	
			$= \frac{12}{430}$ oe				
			$\frac{P(X = 2, 4, 6, 8 \text{ and } X \text{ even})}{P(X \text{ even})} = \frac{P(X = 2, 4, 6, 8)}{P(X \text{ even})}$	A1	3.2a	$\frac{\text{their } P(X = 2, 4, 6, 8)}{\text{their } P(X \text{ even})}$	
			$= \frac{12}{430} \div \frac{22}{43} = \frac{3}{55}$ oe or 0.0545 (3 s.f.)				
				B1	2.1	For a clear solution allowing the line of reasoning to be followed, with each component of the conditional probability found clearly	
				[6]			