Q	Answer	Mark	Comments
1	$0.5k + 7k - 0.15 + 2.5k = 1$	M1	oe eg $10k - 0.15 = 1$
	$k = 0.115$	A1	oe
	0.655	A1ft	oe eg $\frac{131}{200}$ or 65.5% ft their 0.115 to 3 dp or better with M1 scored if their 0.115 and their answer are both in the range (0, 1)
	Additional Guidance		
	Accept working in percentages		
	$10k - 0.15 = 1$, $10k = 0.85$, $k = 0.085$, answer 0.445		M1A0A1ft
	$10k + 0.15 = 1$, $10k = 0.85$, $k = 0.085$, answer 0.445		M0A0A0

Q	Answer	Mark	Comment
2	$\frac{n}{25}$ and $\frac{n-1}{24}$	M1	oe may be implied eg $\frac{n(n-1)}{600}$
	$n^2 - n - 210$ (= 0)	M1dep	oe with all terms fully simplified eg $n^2 - n = 210$
	$(n - 15)(n + 14)$ or $\frac{-(-1) \pm \sqrt{(-1)^2 - 4 \times 1 \times -210}}{2 \times 1}$ or $\frac{1}{2} \pm \sqrt{210 + \frac{1}{4}}$	M1	oe eg $\frac{1 \pm \sqrt{841}}{2}$ or $\frac{1 \pm 29}{2}$ or 0.5 ± 14.5 ft their 3-term quadratic
	15	A1	15 and –14 is A0
	Additional Guidance		
	Answer 15 with no working or from trial		M3A1
	Beware Answer 15 from incorrect working eg $\frac{n}{25} \times \frac{n}{25} = \frac{7}{20}$ $n^2 = 218.75$ $n = 15$		M0M0M0A0
	Allow n to be N or x etc		
	3rd M1 Allow $(-1)^2$ to be 1^2		
	3rd M1 Do not allow $(-1)^2$ to be -1^2 unless recovered		
	3rd M1 Allow ± to be +		
	3rd M1 Square root sign should cover all appropriate work unless recovered eg $\frac{1 \pm \sqrt{1} + 840}{2}$ not recovered		M0
	3rd M1 Fraction line should be under all appropriate work unless recovered eg $1 \pm \frac{\sqrt{841}}{2}$ not recovered		M0
	3rd M1 $\sqrt{((-1)^2 - 4 \times 1 \times -210)}$ is correct for $\sqrt{(-1)^2 - 4 \times 1 \times -210}$		