

2(a)	Method 1 total arrangements with As together – arrangements with
	$\frac{7!}{2!} - 6!$
	$n - 6!$
	1800
	Method 2 arrangements of other 6 letters with the As together and th
	$5! \times \frac{6 \times 5}{2}$
	1800

2(b)	Method 1
	$[P(X < 6) =] 1 - \left(\frac{3}{4}\right)^5 [$
	$= 0.763, \frac{781}{1024}$
	Method 2
	$[P(X < 6) =] \frac{1}{4} + \left(\frac{1}{4}\right)\left(\frac{3}{4}\right) + \left(\frac{1}{4}\right)\left(\frac{3}{4}\right)^2 + \left(\frac{1}{4}\right)\left(\frac{3}{4}\right)^3 + \left(\frac{1}{4}\right)\left(\frac{3}{4}\right)^4$
2(c)	$= 0.763, \frac{781}{1024}$
2(c)	$\left(\frac{1}{4}\right)^2 \left(\frac{3}{4}\right)^4 \times 5 = \frac{405}{4096}$
	$= 0.0989$