

**Tutorial Sheet 25**  
**(Answers)**

1. a) 0.02835

b) 0.4718

c) 0.03078

2. a) 0.941

b) 0.00144

c) 0.00194

3. a)

x	0	1	2	3	4	5	6	7	8
p(x)	0.232	0.372	0.261	0.104	0.0260	0.00417	$4.17 \times 10^{-4}$	$2.38 \times 10^{-5}$	$5.95 \times 10^{-7}$

b) 0.00461

c) 1

4. a)  $p(x) = {}_n C_x \theta^x (1-\theta)^{n-x}$ ,  $p(x+1) = {}_n C_{x+1} \theta^{x+1} (1-\theta)^{n-(x+1)}$

d) (i) 0.3874 (ii) 0.2461