

	A	B	C	D	E	F	G	H
1	Fit the binomial distribution and find the expected frequencies.							
2	Find the probabilities.							
3	i) $P(X = 4)$							
4	ii) $P(X < 4)$							
5	iii) $P(X \leq 4)$							
6	iv) $P(X > 4)$							
7								
8	x	f	p(x)	f(x) Expected Frequency	Round f(x)			
9	0	5	0.0166	1.6742	2			
10	1	12	0.0975	9.8484	10			
11	2	19	0.2390	24.1382	24			
12	3	28	0.3124	31.5532	32			
13	4	21	0.2297	23.2009	23			
14	5	14	0.0901	9.0984	9			
15	6	2	0.0147	1.4867	1			
16								
17								
18	Cases	Symbol	Value	Formula				
19	No. Of Cases	n	6	=MAX(A2:A8)				
20	Mean	np	2.9703	=SUMPRODUCT(A2:A8,B2:B8)/SUM(B2:B8)				
21	Total Frequency	N	101	=SUM(B2:B8)				
22	Prob. Of Success	p	0.4950	=C20/C19				
23	Prob. Of Failure	q	0.5050	=1-C22				
24								
25								
26	Probabilities	x	p(x)	Formula				
27	$X = 4$	4	0.2297	=BINOM.DIST(B20,\$C\$12,\$C\$15,FALSE)				
28	$X < 5$	4	0.8952	=BINOM.DIST(B21,\$C\$12,\$C\$15,TRUE)				
29	$X \leq 5$	5	0.9853	=BINOM.DIST(B22,\$C\$12,\$C\$15,TRUE)				
30	$X > 4$	4	0.1048	=1-BINOM.DIST(B23,\$C\$12,\$C\$15,TRUE)				