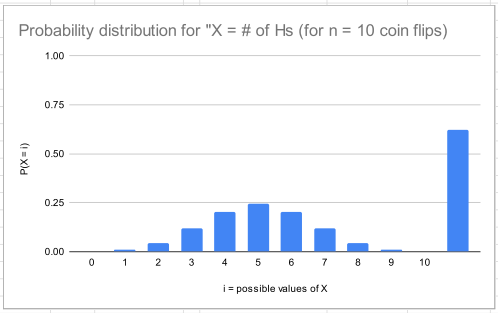
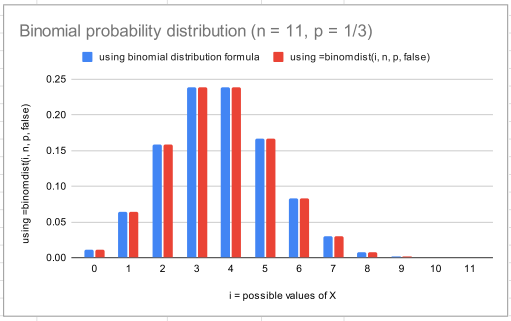
# of coin flips ("trials"): n =	4				5				10			
size of sample space =	16				32				1024			
binomial RV: X = # of heads observed												
	Prob distribution of X			using =binomdist	**Prob distribution of X**			using =binomdist	**Probability distribution of X**			using =binomdist
	i = possible values of X	**# of outcomes**	**P(X = i)**	**P(X = i)**	**i = possible values of X**	**# of outcomes**	**P(X = i)**	**P(X = i)**	**i = possible values of X**	**# of outcomes**	**P(X = i)**	**P(X = i)**
	0	1	0.0625	0.0625	0	1	0.03125	0.03125	0	1	0.0009765625	0.0009765625
	1	4	0.25	0.25	1	5	0.15625	0.15625	1	10	0.009765625	0.009765625
	2	6	0.375	0.375	2	10	0.3125	0.3125	2	45	0.0439453125	0.0439453125
	3	4	0.25	0.25	3	10	0.3125	0.3125	3	120	0.1171875	0.1171875
	4	1	0.0625	0.0625	4	5	0.15625	0.15625	4	210	0.205078125	0.205078125
		checksum	**1**	**1**	5	1	0.03125	0.03125	5	252	0.24609375	0.24609375
						checksum	**1**	**1**	6	210	0.205078125	0.205078125
									7	120	0.1171875	0.1171875
									8	45	0.0439453125	0.0439453125
									9	10	0.009765625	0.009765625
									10	1	0.0009765625	0.0009765625
										checksum	**0.623046875**	**0.623046875**



# of trials: n =	11							0.004167619265	
size of sample space =	2048								
value of p (prob of "success" in each trial)	0.3333333333								
value of q (prob of "failure")	0.6666666667								
binomial RV: X = # of heads observed									
	Prob distribution of X			**P(X = i)**		**cumulative probabilities: P(X <= i)**			
	i = possible values of X	**# of failures (n-i)**	**# of outcomes**	**using binomial distribution formula**	**using =binomdist(i, n, p, false)**	**using =binomdist(i, n, p, true)**	**using =sum on P(X=i)**		**P(X < i)**
	0	11	1	0.01156101994	0.01156101994	0.01156101994	0.01156101994		0.9884389801
	1	10	11	0.06358560969	0.06358560969	0.07514662964	0.07514662964		0.9248533704
	2	9	55	0.1589640242	0.1589640242	0.2341106539	0.2341106539		0.7658893461
	3	8	165	0.23844603634270	0.2384460363	0.4725566902	0.4725566902		0.5274433098
	4	7	330	0.23844603634270	0.2384460363	0.7110027265	0.7110027265		0.2889972735
	5	6	462	0.16691223	0.1669122254	0.877914952	0.877914952		0.122085048
	6	5	462	0.08345611272	0.08345611272	0.9613710647	0.9613710647		0.03862893529
	7	4	330	0.02980575454	0.02980575454	0.9911768193	0.9911768193		0.008823180748
	8	3	165	0.007451438636	0.007451438636	0.9986282579	0.9986282579		0.001371742112
	9	2	55	0.001241906439	0.001241906439	0.9998701643	0.9998701643		0.0001298356732
	10	1	11	0.0001241906439	0.0001241906439	0.999994355	0.999994355		0.000005645029269
	11	0	1	0.000005645029269	0.000005645029269	1	1		0



exp value E[X] =	
0.008823180748	

#3(c)							#5(d)					
n =	5						n =	240				
p =	0.7						p =	0.8				
q =	0.3										(i) using =sum:	(ii) using =1-binomdist
										P(X > 200) =	0.082598	0.082598
i	C(5, i)	p^i	q^(n-i)	P(R = i)	check using =binomdist		i	P(R = i)				
0	1	1	0.00243	0.00243	0.00243		0	1.77E-168				
1	5	0.7	0.0081	0.02835	0.02835		1	1.70E-165				
2	10	0.49	0.027	0.1323	0.1323		2	8.11E-163				
3	10	0.343	0.09	0.3087	0.3087		3	2.57E-160				
4	5	0.2401	0.3	0.36015	0.36015		4	6.10E-158				
5	1	0.16807	1	0.16807	0.16807		5	1.15E-155				
							6	1.80E-153				
							7	2.41E-151				
							8	2.81E-149				
							9	2.90E-147				
							10	2.68E-145				
							11	2.24E-143				
							12	1.71E-141				
							13	1.20E-139				
							14	7.78E-138				
							15	4.69E-136				
							16	2.64E-134				
							17	1.39E-132				
							18	6.88E-131				
							19	3.22E-129				
							20	1.42E-127				
							21	5.96E-126				
							22	2.37E-124				
							23	9.00E-123				
							24	3.25E-121				
							25	1.12E-119				
							26	3.72E-118				
							27	1.18E-116				
							28	3.59E-115				
							29	1.05E-113				
							30	2.95E-112				
							31	8.00E-111				
							32	2.09E-109				
							33	5.27E-108				
							34	1.28E-106				
							35	3.02E-105				
							36	6.88E-104				
							37	1.52E-102				
							38	3.24E-101				
							39	6.72E-100				
							40	1.35E-98				
							41	2.63E-97				
							42	4.99E-96				
							43	9.20E-95				
							44	1.65E-93				
							45	2.87E-92				
							46	4.87E-91				
							47	8.03E-90				
							48	1.29E-88				
							49	2.03E-87				
							50	3.09E-86				
							51	4.61E-85				
							52	6.70E-84				
							53	9.51E-83				
							54	1.32E-81				
							55	1.78E-80				
							56	2.36E-79				
							57	3.04E-78				
							58	3.84E-77				
							59	4.74E-76				
							60	5.72E-75				
							61	6.75E-74				
							62	7.79E-73				
							63	8.80E-72				
							64	9.74E-71				
							65	1.05E-69				
							66	1.12E-68				
							67	1.16E-67				
							68	1.18E-66				
							69	1.18E-65				
							70	1.15E-64				
							71	1.10E-63				
							72	1.04E-62				
							73	9.54E-62				
							74	8.61E-61				
							75	7.62E-60				
							76	6.62E-59				
							77	5.64E-58				
							78	4.71E-57				
							79	3.87E-56				
							80	3.11E-55				

81	2.46E-54
82	1.91E-53
83	1.45E-52
84	1.09E-51
85	7.97E-51
86	5.75E-50
87	4.07E-49
88	2.83E-48
89	1.93E-47
90	1.30E-46
91	8.56E-46
92	5.54E-45
93	3.53E-44
94	2.21E-43
95	1.36E-42
96	8.20E-42
97	4.87E-41
98	2.84E-40
99	1.63E-39
100	9.19E-39
101	5.10E-38
102	2.78E-37
103	1.49E-36
104	7.85E-36
105	4.06E-35
106	2.07E-34
107	1.04E-33
108	5.11E-33
109	2.48E-32
110	1.18E-31
111	5.52E-31
112	2.54E-30
113	1.15E-29
114	5.14E-29
115	2.25E-28
116	9.71E-28
117	4.11E-27
118	1.72E-26
119	7.04E-26
120	2.84E-25
121	1.13E-24
122	4.39E-24
123	1.69E-23
124	6.36E-23
125	2.36E-22
126	8.62E-22
127	3.10E-21
128	1.09E-20
129	3.80E-20
130	1.30E-19
131	4.35E-19
132	1.44E-18
133	4.67E-18
134	1.49E-17
135	4.69E-17
136	1.45E-16
137	4.39E-16
138	1.31E-15
139	3.85E-15
140	1.11E-14
141	3.15E-14
142	8.79E-14
143	2.41E-13
144	6.49E-13
145	1.72E-12
146	4.48E-12
147	1.14E-11
148	2.88E-11
149	7.11E-11
150	1.72E-10
151	4.11E-10
152	9.63E-10
153	2.22E-09
154	5.01E-09
155	1.11E-08
156	2.42E-08
157	5.18E-08
158	1.09E-07
159	2.25E-07
160	4.55E-07
161	9.04E-07
162	1.76E-06
163	3.38E-06
164	6.34E-06
165	1.17E-05
166	2.11E-05
167	3.74E-05

168	6.50E-05
169	1.11E-04
170	1.85E-04
171	3.03E-04
172	4.87E-04
173	7.65E-04
174	1.18E-03
175	1.78E-03
176	2.63E-03
177	3.80E-03
178	5.38E-03
179	7.45E-03
180	1.01E-02
181	1.34E-02
182	1.74E-02
183	2.20E-02
184	2.73E-02
185	3.30E-02
186	3.91E-02
187	4.51E-02
188	5.09E-02
189	5.60E-02
190	6.01E-02
191	6.30E-02
192	6.43E-02
193	6.39E-02
194	6.20E-02
195	5.85E-02
196	5.37E-02
197	4.80E-02
198	4.17E-02
199	3.52E-02
200	2.88E-02
201	2.30E-02
202	1.77E-02
203	1.33E-02
204	9.63E-03
205	6.77E-03
206	4.60E-03
207	3.02E-03
208	1.92E-03
209	1.17E-03
210	6.93E-04
211	3.94E-04
212	2.16E-04
213	1.13E-04
214	5.73E-05
215	2.77E-05
216	1.28E-05
217	5.67E-06
218	2.39E-06
219	9.62E-07
220	3.67E-07
221	1.33E-07
222	4.55E-08
223	1.47E-08
224	4.46E-09
225	1.27E-09
226	3.37E-10
227	8.31E-11
228	1.90E-11
229	3.97E-12
230	7.60E-13
231	1.32E-13
232	2.04E-14
233	2.80E-15
234	3.36E-16
235	3.43E-17
236	2.90E-18
237	1.96E-19
238	9.89E-21
239	3.31E-22
240	5.52E-24

Blood pressure example from the class outline			
X ~ N(μ = 128.4, σ = 19.6)			
Probability calculations:			
The probability that the chosen adult has a blood pressure less than 128, i.e., P(X < 128):			
0.4918588859			
The probability that the chosen adult has a blood pressure greater than 140, i.e., P(X > 140):			
P(X < 140):			
0.7230200391			
P(X > 140):			
0.2769799609			
P(115 < X < 145):			
0.5543946859			