

# UK National Lottery Results

Numbers are listed in the order they were drawn.

Draw number 1 was made on 19th November 1994

Draw number 116 was made on 1st February 1997

Draw 116 was the last of the once-a-week lotteries.

After that it was twice-a-week (Wednesday & Saturday).

Sheet 1 covers Lotteries	1 to 80	19th Nov 94 to 25th May 1996
Sheet 2 covers Lotteries	81 to 160	1st June 96 to 5th July 1997
Sheet 3 covers Lotteries	161 to 240	9th July 97 to 11th April 1998
Sheet 4 covers Lotteries	241 to 320	15th April 98 to 16th Jan 1999
Sheet 5 covers Lotteries	321 to 400	20th Jan 99 to 23rd Oct 1999
Sheet 6 covers Lotteries	401 to 480	27th Oct 99 to 29th July 2000
Sheet 7 covers Lotteries	481 to 560	2nd Aug 00 to 5th May 2001
Sheet 8 covers Lotteries	561 to 628	6th May 01 to <b>29th Dec 2001</b>

The last pages contain Notes for Teachers

# National Lottery Winning Numbers - 1

Draw	Six winning numbers						Bonus								
1.	30	3	5	44	14	22	10	41.	21	41	18	38	16	27	26
2.	16	6	44	31	12	15	37	42.	40	49	28	15	1	22	44
3.	21	11	17	30	29	40	31	43.	12	22	41	2	20	45	47
4.	26	47	49	43	35	38	28	44.	37	14	25	41	10	2	5
5.	13	3	38	5	14	9	30	45.	10	34	24	19	5	46	28
6.	27	29	39	3	44	2	6	46.	11	33	40	10	32	29	16
7.	17	44	36	32	9	42	16	47.	28	37	10	30	36	22	45
8.	21	32	2	5	25	22	46	48.	25	30	9	5	4	47	17
9.	23	38	17	7	32	42	48	49.	17	19	2	21	6	47	5
10.	47	6	16	31	30	20	4	50.	16	33	44	27	35	7	5
11.	31	16	25	43	4	26	21	51.	6	14	18	48	27	44	1
12.	46	42	1	38	7	37	20	52.	23	28	48	10	7	30	3
13.	48	38	15	29	18	35	5	53.	33	7	4	48	18	45	1
14.	45	16	36	19	21	29	43	54.	46	42	28	16	30	23	45
15.	18	33	8	31	5	10	28	55.	26	16	19	46	15	35	7
16.	17	36	11	12	42	26	13	56.	5	26	29	12	11	33	20
17.	2	22	13	46	29	27	36	57.	23	49	7	28	35	8	10
18.	41	19	31	18	9	24	21	58.	40	47	6	49	34	11	16
19.	4	49	41	44	42	17	24	59.	6	43	42	39	45	32	36
20.	43	41	22	25	30	32	29	60.	4	13	2	3	42	44	24
21.	42	17	22	24	47	14	34	61.	31	32	48	21	29	34	25
22.	1	23	26	4	6	49	8	62.	23	37	33	30	25	5	3
23.	33	36	8	20	38	18	46	63.	16	41	38	17	43	42	28
24.	31	9	15	34	48	22	23	64.	2	32	44	22	9	26	40
25.	35	14	48	17	43	5	22	65.	14	28	11	4	15	42	6
26.	41	16	28	25	7	26	19	66.	18	14	16	22	4	15	33
27.	46	15	17	28	16	32	22	67.	5	24	44	2	7	35	30
28.	45	12	25	37	44	13	9	68.	41	11	9	24	45	12	6
29.	31	1	29	40	21	32	27	69.	45	30	37	16	29	14	7
30.	44	15	26	46	12	49	14	70.	19	38	48	12	28	2	45
31.	48	30	40	27	38	33	2	71.	30	18	5	14	43	7	28
32.	5	43	45	21	15	42	20	72.	37	12	49	27	26	28	43
33.	25	7	8	5	48	44	3	73.	38	4	14	1	17	6	9
34.	3	14	11	20	1	40	45	74.	38	47	23	44	49	40	12
35.	1	4	43	20	31	41	38	75.	40	31	9	29	28	48	23
36.	3	21	22	2	23	40	24	76.	18	11	31	48	6	4	41
37.	41	34	49	28	46	45	11	77.	47	6	33	25	26	34	49
38.	35	1	25	30	45	8	15	78.	7	48	12	10	22	34	11
39.	25	33	28	47	11	34	48	79.	33	46	4	40	13	12	41
40.	24	23	48	5	8	28	19	80.	8	26	42	20	34	43	25

## National Lottery Winning Numbers - 2

Draw	Six winning numbers						Bonus								
81.	35	45	24	37	36	39	20	121.	39	36	9	11	19	41	13
82.	32	15	17	11	25	46	29	122.	5	23	8	1	9	27	22
83.	47	25	18	44	13	46	34	123.	34	36	38	44	2	46	40
84.	4	7	11	17	3	40	20	124.	33	23	49	8	2	42	14
85.	34	35	17	27	46	4	7	125.	28	12	20	24	43	7	45
86.	44	47	45	43	26	13	36	126.	12	29	5	39	20	42	22
87.	11	5	42	41	10	12	2	127.	5	22	25	16	3	4	12
88.	14	44	6	25	34	20	45	128.	43	39	37	24	7	40	15
89.	13	21	45	2	19	32	9	129.	40	16	48	13	29	17	32
90.	26	28	36	31	13	17	44	130.	41	39	27	40	14	43	21
91.	41	23	36	45	3	38	44	131.	24	44	43	42	33	47	17
92.	28	42	33	39	44	2	46	132.	19	40	36	17	31	39	25
93.	8	11	14	33	44	18	34	133.	25	17	10	43	40	5	8
94.	27	3	5	47	14	44	43	134.	46	28	31	1	41	3	33
95.	5	13	15	44	18	32	41	135.	6	22	35	49	45	42	16
96.	10	9	38	48	11	2	1	136.	9	37	27	44	42	29	21
97.	41	35	8	7	30	12	47	137.	48	37	9	6	19	3	25
98.	19	26	23	39	36	31	3	138.	32	37	14	1	16	25	11
99.	47	45	9	48	6	25	14	139.	23	34	12	8	17	43	36
100.	25	15	45	16	39	30	14	140.	10	6	14	25	27	38	5
101.	13	34	48	10	39	31	33	141.	16	40	10	17	24	8	13
102.	1	35	3	20	30	9	36	142.	29	40	35	20	6	31	21
103.	48	35	43	23	32	7	25	143.	43	34	19	28	12	31	40
104.	43	24	49	8	27	41	5	144.	44	25	22	23	12	19	2
105.	42	1	5	16	18	37	24	145.	2	21	29	37	8	16	22
106.	49	16	46	43	34	33	47	146.	9	2	13	18	27	48	24
107.	26	12	4	25	5	49	48	147.	8	21	38	49	39	5	34
108.	42	17	13	22	47	6	30	148.	26	3	23	33	25	21	24
109.	24	12	33	42	47	34	44	149.	19	36	48	24	25	3	17
110.	26	45	42	5	35	38	46	150.	29	9	28	5	2	45	49
111.	8	31	20	10	39	27	30	151.	34	18	44	21	30	19	6
112.	40	27	13	14	41	11	23	152.	21	30	40	25	14	12	3
113.	16	43	4	11	18	35	39	153.	40	44	10	42	31	33	20
114.	22	48	3	31	21	26	43	154.	10	8	16	43	44	3	34
115.	35	31	47	1	28	24	9	155.	23	19	4	14	25	48	42
116.	12	48	36	20	28	16	34	156.	27	44	26	1	17	30	47
117.	25	9	35	28	29	31	37	157.	27	38	28	40	12	17	6
118.	9	13	36	47	27	30	15	158.	14	2	9	48	36	43	27
119.	23	45	5	38	29	14	47	159.	18	6	41	22	10	45	29
120.	14	21	7	38	47	34	13	160.	1	36	43	11	4	44	41

## National Lottery Winning Numbers - 3

Draw	Six winning numbers						Bonus								
161.	3	43	13	22	5	24	23	201.	23	47	24	19	11	5	17
162.	45	44	9	4	27	37	7	202.	2	21	47	8	46	29	28
163.	8	35	45	23	18	26	3	203.	8	39	36	49	47	1	20
164.	45	47	7	19	36	44	4	204.	30	5	19	09	21	49	43
165.	4	28	11	21	34	27	16	205.	4	38	17	22	48	29	20
166.	27	15	41	30	9	20	31	206.	4	30	32	14	03	11	46
167.	12	19	3	45	6	44	20	207.	36	35	49	17	46	43	7
168.	16	47	2	43	37	28	31	208.	1	34	26	38	2	7	14
169.	49	20	3	6	45	5	31	209.	5	29	41	11	6	36	47
170.	1	30	31	25	18	20	44	210.	31	14	21	28	40	46	9
171.	29	17	10	5	41	43	45	211.	21	18	13	8	29	23	30
172.	2	49	20	9	19	38	11	212.	28	13	35	26	1	45	30
173.	28	8	41	20	27	36	30	213.	38	25	14	7	36	32	44
174.	25	36	44	47	10	4	29	214.	3	49	10	27	11	47	8
175.	25	47	31	7	22	1	20	215.	28	27	20	41	33	31	38
176.	33	46	30	38	6	20	42	216.	38	14	48	33	46	31	26
177.	43	22	14	38	10	30	25	217.	12	5	24	35	38	36	34
178.	22	41	40	36	20	26	16	218.	24	49	6	1	14	4	22
179.	31	20	45	43	35	32	5	219.	15	4	12	32	47	31	14
180.	5	40	2	31	1	32	44	220.	40	46	17	30	22	48	10
181.	40	44	20	7	21	22	4	221.	32	42	17	45	13	35	20
182.	44	9	30	38	40	43	31	222.	31	25	27	9	42	45	24
183.	31	32	44	12	14	29	46	223.	42	11	49	32	46	38	26
184.	33	40	15	21	29	32	42	224.	17	13	14	28	8	20	10
185.	38	17	8	12	49	35	25	225.	32	1	25	5	13	10	48
186.	46	19	40	12	36	28	38	226.	16	37	2	25	45	27	10
187.	3	43	4	23	34	7	15	227.	21	9	36	48	27	42	13
188.	18	17	15	34	40	27	29	228.	1	18	15	30	7	31	9
189.	45	39	30	17	11	35	47	229.	6	41	45	34	28	30	12
190.	4	28	46	9	32	25	47	230.	14	44	11	39	4	43	37
191.	1	8	14	9	35	24	33	231.	16	23	28	33	22	37	17
192.	10	38	27	40	21	44	34	232.	26	15	18	2	38	36	42
193.	2	4	33	32	25	45	31	233.	47	25	39	31	46	12	1
194.	37	16	10	39	9	14	28	234.	41	15	2	26	23	43	5
195.	1	4	9	6	32	38	46	235.	25	10	6	31	1	45	8
196.	24	34	5	48	40	37	33	236.	28	37	11	23	29	13	8
197.	8	45	36	6	27	3	47	237.	36	1	24	2	37	38	31
198.	14	11	32	35	34	23	41	238.	33	24	19	38	48	5	20
199.	22	47	27	33	42	46	32	239.	41	43	37	22	47	9	14
200.	45	8	14	28	24	39	29	240.	44	7	43	31	35	10	37

## National Lottery Winning Numbers - 4

Draw	Six winning numbers						Bonus								
241.	36	26	29	18	12	1	2	281.	43	33	19	27	39	7	9
242.	29	33	42	13	31	1	9	282.	27	47	42	11	10	9	8
243.	37	12	10	7	9	3	46	283.	32	2	1	9	27	28	25
244.	17	38	22	48	43	36	16	284.	15	33	3	23	28	25	29
245.	40	15	36	28	34	12	1	285.	45	18	36	28	25	40	43
246.	2	49	4	29	24	16	47	286.	34	40	28	24	26	27	9
247.	22	19	27	6	14	7	9	287.	14	28	11	26	9	39	27
248.	35	40	25	2	26	9	47	288.	35	15	40	6	18	29	49
249.	16	13	3	42	23	41	21	289.	10	31	12	28	14	38	27
250.	34	4	44	10	2	6	21	290.	19	1	32	11	18	22	41
251.	11	42	35	36	31	15	10	291.	12	29	24	2	30	33	41
252.	24	20	47	8	43	35	32	292.	46	26	43	21	11	13	38
253.	13	15	26	8	39	42	33	293.	41	1	2	45	5	15	24
254.	3	2	40	29	38	14	43	294.	37	3	45	25	41	36	9
255.	17	41	23	18	1	33	42	295.	11	41	3	42	15	48	26
256.	31	15	48	23	42	1	5	296.	15	41	26	6	8	23	49
257.	28	33	46	2	26	9	21	297.	31	7	49	2	1	17	41
258.	7	2	10	27	45	15	31	298.	14	5	12	18	38	9	35
259.	17	2	27	16	20	10	39	299.	9	11	2	42	23	24	27
260.	14	38	27	31	47	1	32	300.	31	32	13	25	24	44	43
261.	19	25	14	2	33	26	18	301.	5	19	49	29	11	25	12
262.	11	43	9	7	23	30	35	302.	7	23	17	12	11	39	42
263.	28	18	40	46	44	17	29	303.	2	12	47	35	30	8	39
264.	49	29	9	32	15	25	14	304.	17	49	22	38	7	9	47
265.	13	12	36	23	33	21	14	305.	8	4	39	37	43	30	31
266.	3	39	14	23	43	30	32	306.	30	37	25	4	26	45	46
267.	15	1	23	35	39	31	14	307.	16	37	11	28	49	7	30
268.	42	44	20	3	33	11	36	308.	27	35	23	26	4	7	28
269.	28	46	38	47	39	34	21	309.	49	1	40	45	7	39	38
270.	36	43	18	44	25	38	19	310.	46	38	28	41	26	39	25
271.	23	38	7	1	48	29	2	311.	11	19	40	20	24	29	9
272.	12	41	49	31	14	48	6	312.	10	9	18	25	48	28	34
273.	38	42	35	40	47	13	34	313.	12	18	47	4	38	30	20
274.	21	2	47	5	17	45	25	314.	8	2	32	35	41	11	4
275.	23	25	44	21	49	12	20	315.	3	18	49	13	24	34	33
276.	35	15	3	31	5	22	47	316.	38	4	41	31	46	33	22
277.	27	48	46	44	5	34	49	317.	18	2	21	47	11	23	27
278.	2	38	11	27	32	10	6	318.	31	1	23	37	15	40	45
279.	43	26	27	3	30	20	45	319.	35	25	48	27	6	42	15
280.	10	44	37	42	12	45	20	320.	41	11	32	42	28	26	44

## National Lottery Winning Numbers - 5

Draw	Six winning numbers						Bonus								
321.	8	28	19	40	14	4	12	361.	46	48	10	8	12	34	20
322.	10	8	47	17	32	1	2	362.	23	3	18	21	49	36	47
323.	3	2	20	6	21	22	11	363.	25	37	17	45	38	21	5
324.	32	19	7	37	44	40	47	364.	20	42	4	24	41	6	38
325.	39	24	47	3	18	16	17	365.	43	8	18	11	30	33	34
326.	17	40	38	2	49	23	10	366.	23	18	2	17	40	30	43
327.	35	21	33	2	49	20	32	367.	49	2	32	19	25	14	31
328.	23	27	47	26	49	5	48	368.	11	44	17	36	28	42	37
329.	42	31	32	22	2	40	33	369.	44	41	43	4	6	8	28
330.	23	17	3	40	9	29	44	370.	35	7	5	15	26	40	45
331.	2	3	34	27	13	48	41	371.	37	1	15	21	42	41	43
332.	1	13	7	15	38	43	47	372.	45	48	15	3	23	42	46
333.	22	40	25	24	20	36	1	373.	26	12	17	32	46	33	4
334.	8	37	43	32	47	33	45	374.	8	25	37	48	26	38	24
335.	18	49	27	8	36	32	46	375.	14	32	30	46	3	49	10
336.	15	2	17	44	1	24	22	376.	46	12	26	49	27	32	42
337.	45	1	7	29	38	46	35	377.	3	31	36	4	29	9	41
338.	45	29	13	49	25	17	28	378.	22	4	24	19	7	46	47
339.	45	48	23	21	32	27	22	379.	1	38	39	48	15	22	25
340.	44	9	36	25	30	48	2	380.	9	38	18	44	24	1	26
341.	26	1	24	38	5	12	11	381.	38	45	8	6	13	34	17
342.	9	7	43	3	40	15	11	382.	15	48	12	16	17	42	45
343.	46	29	23	10	15	27	38	383.	22	1	48	36	20	8	11
344.	35	25	18	36	32	10	2	384.	15	27	6	14	47	17	29
345.	9	32	25	5	12	30	38	385.	27	5	49	3	19	39	15
346.	41	46	28	16	29	3	6	386.	14	7	5	20	3	10	16
347.	44	22	3	31	46	12	45	387.	38	22	17	36	10	8	34
348.	8	25	11	3	46	47	30	388.	21	29	2	16	46	4	5
349.	24	43	49	15	36	23	11	389.	32	9	27	14	49	30	3
350.	24	31	7	33	40	20	49	390.	5	23	33	11	15	18	38
351.	22	7	44	17	39	13	18	391.	37	28	21	6	16	44	15
352.	1	33	12	31	47	24	7	392.	20	43	18	30	26	49	36
353.	8	26	47	9	29	38	44	393.	33	43	1	3	8	39	49
354.	24	27	14	18	4	40	33	394.	14	38	37	28	49	3	33
355.	38	49	5	27	2	1	41	395.	9	21	45	19	30	13	37
356.	24	26	8	11	14	49	45	396.	46	15	26	29	38	8	12
357.	33	46	29	14	22	26	10	397.	34	29	19	33	3	23	10
358.	7	3	12	43	9	44	45	398.	31	11	27	41	40	25	12
359.	37	36	34	23	27	17	12	399.	33	43	27	9	29	18	48
360.	24	20	11	28	48	35	33	400.	8	15	4	10	25	39	49

## National Lottery Winning Numbers - 6

Draw	Six winning numbers						Bonus								
401.	9	4	13	22	25	32	3	441.	12	7	25	30	28	40	37
402.	15	44	27	10	17	47	14	442.	5	15	8	16	22	39	31
403.	22	37	31	35	25	3	48	443.	18	36	40	20	6	33	10
404.	34	36	10	46	8	23	2	444.	22	27	23	15	37	32	43
405.	10	19	28	35	2	18	26	445.	28	32	23	11	18	20	15
406.	28	7	39	29	21	10	2	446.	11	30	29	25	19	3	16
407.	33	2	23	36	31	6	20	447.	3	48	2	10	40	7	37
408.	29	20	9	15	7	34	6	448.	18	49	46	47	23	30	31
409.	1	16	34	44	12	33	37	449.	12	22	26	34	19	9	44
410.	49	22	10	47	46	8	32	450.	28	31	46	2	23	48	52
411.	37	42	36	38	47	28	23	451.	1	19	29	3	7	44	25
412.	23	31	25	47	16	35	48	452.	31	49	43	48	26	35	38
413.	10	11	26	31	7	33	39	453.	14	9	39	28	36	4	6
414.	43	37	46	5	27	9	28	454.	16	15	19	42	27	29	24
415.	16	35	43	4	44	9	27	455.	48	38	6	36	5	24	15
416.	6	12	29	13	7	18	25	456.	3	41	30	31	45	2	23
417.	39	29	47	49	46	32	24	457.	46	29	38	10	18	37	4
418.	23	25	35	24	21	2	38	458.	6	35	30	45	42	44	33
419.	16	33	36	26	47	39	43	459.	21	11	48	1	15	10	7
420.	23	48	2	14	27	5	38	460.	44	18	7	11	25	21	28
421.	30	22	33	31	25	5	7	461.	38	21	6	36	46	8	33
422.	13	18	41	32	34	39	2	462.	34	33	43	45	23	21	40
423.	19	14	27	17	3	10	49	463.	19	11	14	1	44	38	45
424.	12	10	17	47	31	16	21	464.	3	48	8	19	35	36	21
425.	4	46	43	17	16	48	5	465.	20	2	24	5	39	28	21
426.	10	7	40	44	9	41	14	466.	35	44	15	47	1	14	34
427.	43	28	41	21	14	6	30	467.	24	38	4	7	26	23	3
428.	48	21	27	17	5	7	37	468.	43	4	25	40	24	22	6
429.	42	10	31	32	39	30	25	469.	10	24	33	46	37	1	4
430.	40	47	38	49	21	46	48	470.	32	6	34	48	9	42	4
431.	14	19	32	6	3	14	35	471.	46	27	10	8	38	40	3
432.	18	6	12	17	19	4	37	472.	48	11	16	22	42	39	38
433.	16	7	42	6	19	12	18	473.	25	6	23	19	28	11	35
434.	5	1	32	46	43	11	38	474.	46	30	21	41	35	38	26
435.	20	39	17	18	47	11	43	475.	21	27	4	41	12	49	40
436.	45	8	6	5	3	16	1	476.	1	2	7	39	44	35	14
437.	4	12	15	30	10	8	34	477.	33	31	41	23	38	16	20
438.	47	28	26	11	13	19	8	478.	13	45	16	47	48	43	36
439.	46	32	22	36	6	18	24	479.	40	28	29	43	2	47	30
440.	49	46	42	12	7	37	9	480.	29	30	48	45	37	33	15

## National Lottery Winning Numbers - 7

Draw	Six winning numbers						Bonus								
481.	39	46	44	38	35	26	1	521.	41	46	49	5	8	39	13
482.	48	39	1	35	37	3	26	522.	16	37	17	23	2	38	6
483.	14	10	32	35	36	43	37	523.	37	9	36	26	42	24	25
484.	36	46	31	43	35	6	33	524.	47	1	16	7	38	18	10
485.	45	24	11	37	34	33	43	525.	6	22	16	5	17	19	40
486.	46	43	38	34	22	5	9	526.	40	35	34	16	23	6	37
487.	31	37	32	47	3	38	20	527.	27	15	24	14	10	23	39
488.	35	11	29	4	16	34	13	528.	23	12	36	40	34	28	18
489.	24	21	41	38	40	13	9	529.	47	36	10	24	31	13	41
490.	11	21	36	31	12	40	22	530.	41	13	22	43	17	47	28
491.	23	11	32	6	44	7	34	531.	29	28	39	10	31	11	24
492.	4	35	25	43	24	3	7	532.	47	15	45	39	4	12	22
493.	14	32	20	49	25	47	34	533.	1	33	38	36	16	45	48
494.	4	26	42	47	22	23	5	534.	17	15	25	26	2	16	44
495.	7	30	34	39	25	38	28	535.	5	2	33	37	45	40	22
496.	35	6	16	45	18	32	46	536.	12	32	7	20	17	9	30
497.	10	28	40	4	24	47	25	537.	3	23	10	30	27	32	19
498.	12	44	27	15	32	40	35	538.	14	40	10	45	31	35	26
499.	10	43	14	19	49	46	2	539.	40	24	8	10	30	44	17
500.	6	20	28	45	31	1	26	540.	28	3	29	1	12	41	42
501.	19	10	6	34	30	41	26	541.	12	13	9	22	32	4	8
502.	37	7	38	22	40	31	30	542.	7	48	20	14	24	38	17
503.	32	36	19	6	4	11	23	543.	3	30	40	12	33	49	22
504.	15	24	18	8	14	44	31	544.	21	4	37	2	36	12	46
505.	6	9	13	26	38	14	22	545.	38	37	1	31	8	5	15
506.	47	13	31	14	23	1	9	546.	1	3	45	15	26	46	48
507.	9	45	38	4	20	23	47	547.	11	42	34	27	39	22	36
508.	2	8	29	44	17	33	11	548.	25	42	31	43	6	32	38
509.	9	2	27	43	16	5	28	549.	36	35	34	25	2	39	26
510.	35	47	18	28	23	34	11	550.	22	34	44	26	37	23	8
511.	28	13	41	44	19	31	6	551.	16	28	10	24	23	45	46
512.	21	9	11	6	27	43	17	552.	19	30	34	9	44	32	18
513.	23	20	33	4	12	31	16	553.	44	49	37	38	2	19	33
514.	42	48	3	43	6	20	30	554.	42	47	7	41	35	24	12
515.	28	37	33	19	7	30	29	555.	35	44	49	46	41	30	33
516.	47	37	2	46	19	28	38	556.	23	46	12	20	26	33	1
517.	6	13	27	10	47	19	25	557.	40	35	11	44	24	10	33
518.	16	11	31	32	25	33	23	558.	2	47	25	44	33	40	17
519.	12	3	38	34	39	23	11	559.	43	23	17	20	2	28	16
520.	21	39	26	29	17	34	37	560.	47	16	46	1	33	3	35

## National Lottery Winning Numbers - 8

Draw	Six winning numbers						Bonus								
561.	30	48	27	9	32	18	46	601.	19	14	3	15	47	17	5
562.	39	6	30	38	45	29	22	602.	44	22	38	14	2	17	35
563.	25	1	33	27	38	45	4	603.	26	44	14	30	45	2	40
564.	12	33	30	48	43	4	35	604.	12	33	29	44	9	47	45
565.	30	31	11	44	4	47	21	605.	38	46	26	28	30	18	25
566.	49	29	15	22	35	3	20	606.	48	40	33	38	49	8	6
567.	35	23	44	7	15	39	48	607.	26	32	31	20	5	40	36
568.	11	32	24	39	7	19	29	608.	19	1	3	21	26	6	14
569.	16	37	38	35	12	47	26	609.	43	38	8	39	44	40	3
570.	33	24	12	45	14	48	31	610.	21	2	24	27	23	38	33
571.	35	12	14	19	48	33	40	611.	36	4	6	49	18	5	13
572.	31	7	35	39	45	25	8	612.	10	34	44	43	39	31	17
573.	11	31	24	49	34	18	48	613.	39	40	10	20	8	9	36
574.	15	24	25	46	16	7	37	614.	25	6	24	23	30	49	39
575.	45	12	49	39	18	43	33	615.	32	19	47	29	43	33	46
576.	43	48	9	15	22	46	21	616.	34	19	12	30	37	41	1
577.	38	13	28	40	32	47	27	617.	30	44	10	25	46	38	17
578.	49	38	34	41	24	37	15	618.	23	30	37	27	38	42	28
579.	24	16	19	11	33	47	39	619.	8	42	32	45	31	22	20
580.	22	14	7	37	38	11	36	620.	34	26	2	48	14	19	11
581.	2	25	31	45	41	37	6	621.	4	19	29	5	8	23	38
582.	27	45	18	13	1	9	29	622.	42	1	14	16	34	30	9
583.	37	8	1	3	2	30	19	623.	38	33	25	23	44	9	29
584.	31	29	3	45	36	13	44	624.	24	7	13	40	35	5	16
585.	15	40	11	27	33	20	14	625.	7	34	48	46	43	28	20
586.	11	47	28	4	15	7	39	626.	10	12	40	23	9	1	8
587.	29	32	31	46	39	26	33	627.	36	17	29	37	26	10	16
588.	36	38	18	19	40	25	42	628.	31	32	36	11	45	19	41
589.	21	18	4	35	38	6	31								
590.	22	18	16	11	23	31	37								
591.	22	33	37	14	20	29	45								
592.	1	43	14	30	36	10	20								
593.	13	47	9	29	4	5	36								
594.	32	34	38	9	49	1	3								
595.	24	48	23	15	43	27	12								
596.	49	6	13	20	1	18	30								
597.	27	35	21	11	30	25	40								
598.	17	2	9	15	40	48	23								
599.	30	8	25	45	6	21	42								
600.	49	14	46	6	35	45	16								

Draw number 628 was made on  
Saturday 29th December 2001

# Teacher's Notes

Whatever the rights and wrongs of the National Lottery, and there are both moral and mathematical arguments involved on either side, there is no doubt it exists. Also its operation is understood by (nearly) all so there is little need for explanations. As such it is a very good source of raw data on which some statistical techniques can be practised.

Is there not some underlying trend, or some pattern, which will allow us to improve our chances of winning? If we only succeed in killing off that idea then we shall have achieved something! It may well be that one of the as yet unappreciated results of the National Lottery will be to give people a better feel for what “random” means.

The list of results, on the separate pages, provide enough data to give a good idea of the possibilities, and to allow you to think how it might be used.

One practical matter. The results are given in the order in which they were drawn. This is not because the order is thought to be significant but to help convey the idea of just how “rough” raw data can look when it is gathered. The first job of any statistician is usually to impose some order on the raw data. To help in this case, **Recording Sheet 1** is supplied which, used as a tick-sheet would soon provide a frequency count of each number. Neat working would even yield a ready-made bar-chart. There are a lot of results to be processed and it is suggested that individuals could work out just a given number of lotteries (say 20 or 40) and the results aggregated at the end. In that way, with different individuals working on the same groups, it would be possible to make some checks on accuracy.

It is probably better if work is restricted to the main six numbers drawn and the bonus is ignored. Some suggestions for questions/activities are -

- Which number is most frequent?
- Which is the least frequent?
- Make a bar chart to show the frequencies of the numbers.
  - Which group (1 to 9, 10 to 19 etc.) seems to be most favoured? Good reason here to draw a stem and leaf plot.
  - Which are there most of - high or low numbers?
  - What is the spread of the six numbers (the difference between the highest and lowest)?
  - Are odd numbers more frequent than even numbers? (There 25 odd and 24 even in the draw.)
  - What are the greatest and least **totals** it is possible to get, from six balls, by adding their values together?
  - What are the **totals** of the six balls that have actually been drawn? How do they vary? Perhaps instead of looking at the total we should be looking at the mean value? This could produce a time-series which, in turn, provides a reason for using moving averages.
- With the data gathered by individuals serving as

samples, see how well the samples answer the same questions compared with the full data. Individuals (or groups) could work out answers to various questions from their own sample and results compared between samples.

Interesting discussions can be focussed on observations to be made from the data, like the persistence of the 10's in draws 44 to 47; or on the fact that, while there are usually 0 to 4 winners each week, draw number 9 was most unusual in producing 133 winners and draw number 70 had 57, while over 40 draws (out of 250) produced no jackpot winner at all - we can only speculate on the reasons.

Does all this information we have, showing what **has** happened, help us at all in predicting what **will** happen? Can we use that information to make a 'profile' of what the average winning set of numbers looks like? Does that guarantee anything?

Nearly all of that work is concerned with analysing what actually happened, but some work can be done by considering what *should happen in theory*.

And finally, when someone asks, no we are not encouraging our pupils to take part in the National Lottery, or any other form of gambling. What we are doing, I hope, is teaching them to look at such matters in a more analytical and dispassionate manner. If they can appreciate the odds involved, or at least get a feel for their magnitude, and understand that it is all to do with luck I think we can be satisfied. Any mathematics they have learned will be a bonus!

For those who would like to use this data for work with a spreadsheet, look in the index under **Data Files** and download either of the two files

## **Lottery Results** or **Lottery Map**

Notes about these two particular files can be found in another file called **Data Notes**.

It will be noted that the results are not completely up to date. Updating will be done on an irregular basis. To get ALL the results and be really up to date go to the Web site

<http://lottery.merseyworld.com/>

It is a very good site and provides just about everything you could want to know, including several tables and graphs.

The official lottery site is at <http://www.national-lottery.co.uk/game/results.html> but it does not offer anything like the detail that is to be found at the previously named site.

# Teacher's Notes - Background

## What are the Chances?

### The Jackpot

This is the easiest to calculate. It is the number of ways that any 6 numbers can be drawn from 49.

$$= 49! \div (6! \times (49 - 6)!)$$

which cancels down to

$$11 \times 3 \times 23 \times 47 \times 8 \times 49$$

$$= 13,983,816 \text{ (or approx. 14 million.)}$$

So, a chance of **1 in 13,983,816**

### 5 Numbers + Bonus

This is similar to the above but, any one of the (6) main numbers can be dropped. So the number of ways is given by

$$13,983,816 \div 6 = 2,330,636$$

So, a chance of **1 in 2,330,636**

### 5 Numbers

This must be 42 times more likely than the 5 + bonus (above) since, after the 6 main balls are drawn, there are 43 balls left from which to draw the bonus, so 42 can be drawn without becoming 5 + bonus. The number of ways must be

$$2,330,636 \div 42$$

So, a chance of **1 in 55,491.3** (to 1 d.p.)

### 4 Numbers

This requires a longer argument than those given above and will not be given here.

The chance is **1 in 1032.4** (to 1 d.p.)

### 3 Numbers

The chance is **1 in 56.7** (to 1 d.p.)

### Any Prize

The overall chance of winning any prize at all is found by summing the above

The chance is **1 in 53.6** (to 1 d.p.)

Note that this should mean, if you buy a ticket every week then you ought to win one prize a year - **on average**. However, all the anecdotal evidence indicates that it does not work like that - and nobody seems surprised that it doesn't.

At the **merseyworld** site mentioned previously the Web manager gives a full account of his expenditure and winnings (he even has pictures of the cheques he received) and it makes interesting reading.

# Teacher's Notes - Background

## Where does the money go?

- 45% is returned as prizes
- 28% goes to good causes, charities etc.
- 12% goes to the government as tax
- 5% is reserved for *Super Draws* etc.
- 5% is kept by the organizers
- 5% is kept by the ticket sellers

## Is it worth it?

And how do you assess that?

Considered merely as form of gambling it is just about the least “efficient” of all of them - where “efficiency” is a measure of how the money flows between the ‘punter’ and the ‘operator’. No organization dependent entirely for its existence on people's gambling (bookmakers, casinos, pools etc.) would be likely to keep its audience for long if only 45% of the money staked was returned as prizes.

For comparison, in situations where precise calculations are possible because they have fixed odds, like casino games (roulette, blackjack, craps etc.) the returns range from 95 to 98%. With bookmakers the overall return through an entire season is about 80% on average.

As a way of giving to charity it is very inefficient. To give £1 to charity you have, **in addition**, to give 43p to the government, 54p to the collector of your subscription, and another £1.61 to the prize fund that you might have a chance of winning something from. That is a total £3.58 to make a £1 donation. It might be of some consequence to note that you have no say in what charities the money is given to. Do you agree with all the chosen good causes? No, if you want give to charity, hand over your £1 directly to them.

But in the end it is obvious that a considerable number of people do buy tickets, and it would not be inappropriate to discuss why.

It might be of some benefit to mention the matter of odds. A chance of 1 in  $n$  is equivalent to odds of  $(n - 1)$  to 1 against. The payment on any gamble is usually related to the odds involved. So what odds does the National lottery offer? This is difficult to establish since what is paid out depends not on fixed odds, but on how many people bought tickets and how many won. However, the £10 prize is fixed and that represents odds of 9 to 1. The true odds are 55.7 to 1. With that big gap, no gambler would ever consider placing any money on it!

Some bookmakers now offer a chance to bet on their own version of the National Lottery. They use a draw based on the numbers 1 to 49, and draw six numbers, but the bookmakers make the draw much more frequently (up to twice a day). It could be worth looking at the bookmakers' offering because, unlike the official National Lottery, they offer fixed odds on all the bets and comparisons could be made. They also allow bets on just one or two particular numbers being drawn - which the official Lottery doesn't.

For example, the odds quoted by one big firm of bookmakers were -

For 1 number correct	11 to 2
For 2 numbers correct	48 to 1
For 3 numbers correct	511 to 1
For 4 numbers correct	6,560 to 1
For 5 numbers correct	99,999 to 1

# Recording Sheet 1

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	