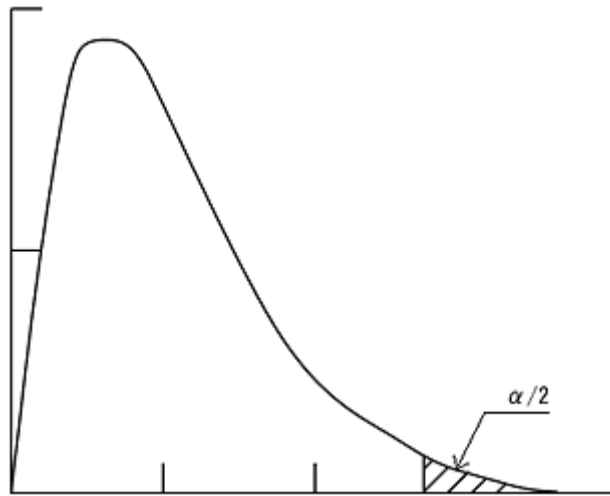


# X<sup>2</sup>分布表 x<sup>2</sup>(f,P)[両側]

- (JIS Z 9055) -



X<sup>2</sup>(f, α/2)

f \ P	1-α/2		α/2		f \ P	1-α/2		α/2	
	0.995	0.975	0.025	0.005		0.995	0.975	0.025	0.005
1	0.00 <sup>3</sup> 393	0.0 <sup>3</sup> 82	5.02	7.88	21	8.034	10.283	35.48	41.40
2	0.0100	0.0506	7.38	10.60	22	8.643	10.982	36.78	42.80
3	0.0717	0.2158	9.35	12.84	23	9.260	11.689	38.08	44.18
4	0.207	0.484	11.14	14.86	24	9.886	12.401	39.36	45.56
5	0.412	0.831	12.83	16.75	25	10.52	13.12	40.65	46.93
6	0.676	1.237	14.45	18.55	26	11.16	13.84	41.92	48.29
7	0.989	1.690	16.01	20.28	27	11.81	14.57	43.19	49.65
8	1.344	2.180	17.53	21.95	28	12.46	15.31	44.46	50.99
9	1.735	2.700	19.02	23.59	29	13.12	16.05	45.72	52.34
10	2.156	3.247	20.48	25.19	30	13.79	16.79	46.98	53.67
11	2.603	3.816	21.92	26.76	31	14.46	17.54	48.23	55.00
12	3.074	4.404	23.34	28.30	32	15.13	18.29	49.48	56.33
13	3.565	5.009	24.74	29.82	33	15.82	19.05	50.73	57.65
14	4.075	5.629	26.12	31.32	34	16.50	19.81	51.97	58.96
15	4.601	6.262	27.49	32.80	35	17.19	20.57	53.20	60.27
16	5.142	6.908	28.85	34.27	36	17.89	21.34	54.44	61.58
17	5.697	7.564	30.19	35.72	37	18.59	22.11	55.67	62.88
18	6.265	8.231	31.53	37.16	38	19.29	22.88	56.90	64.18
19	6.844	8.907	32.85	38.58	39	20.00	23.65	58.12	65.48
20	7.434	9.591	34.17	40.00	40	20.71	24.43	59.34	66.77

f \ P	1- $\alpha/2$		$\alpha/2$		f \ P	1- $\alpha/2$		$\alpha/2$	
	0.995	0.975	0.025	0.005			0.995	0.975	0.025
41	21.42	25.21	60.56	68.05	71	44.06	49.59	96.19	105.43
42	22.14	26.00	61.78	69.34	72	44.84	50.43	97.35	106.65
43	22.86	26.79	62.99	70.62	73	45.63	51.26	98.52	107.86
44	23.58	27.57	64.20	71.89	74	46.42	52.10	99.68	109.07
45	24.31	28.37	65.41	73.17	75	47.21	52.94	100.84	110.29
46	25.04	29.16	66.62	74.44	76	48.00	53.78	102.00	111.50
47	25.77	29.96	67.82	75.70	77	48.79	54.62	103.16	112.70
48	26.51	30.75	69.02	76.97	78	49.58	55.47	104.32	113.91
49	27.25	31.55	70.22	78.23	79	50.38	56.31	105.47	115.12
50	27.99	32.36	71.42	79.49	80	51.17	57.15	106.63	116.32
51	28.73	33.16	72.62	80.75	81	51.97	58.00	107.78	117.52
52	29.48	33.97	73.81	82.00	82	52.77	58.84	108.94	118.73
53	30.23	34.78	75.00	83.25	83	53.57	59.69	110.09	119.93
54	30.98	35.59	76.19	84.50	84	54.37	60.54	111.24	121.13
55	31.73	36.40	77.38	85.75	85	55.17	61.39	112.39	122.32
56	32.49	37.21	78.57	86.99	86	55.97	62.24	113.54	123.52
57	33.25	38.03	79.75	88.24	87	56.78	63.09	114.69	124.72
58	34.01	38.84	80.94	89.48	88	57.58	63.94	115.84	125.91
59	34.77	39.66	82.12	90.72	89	58.39	64.79	116.99	127.11
60	35.53	40.48	83.30	91.95	90	59.20	65.65	118.14	128.30
61	36.30	41.30	84.48	93.19	91	60.00	66.50	119.28	129.49
62	37.07	42.13	85.65	94.42	92	60.81	67.36	120.43	130.68
63	37.84	42.95	86.83	95.65	93	61.63	68.21	121.57	131.87
64	38.61	43.78	88.00	96.88	94	62.44	69.07	122.72	133.06
65	39.38	44.60	89.18	98.10	95	63.25	69.92	123.86	134.25
66	40.16	45.43	90.35	99.33	96	64.06	70.78	125.00	135.43
67	40.93	46.26	91.52	100.55	97	64.88	71.64	126.14	136.62
68	41.71	47.09	92.69	101.78	98	65.69	72.50	127.28	137.80
69	42.49	47.92	93.86	103.00	99	66.51	73.36	128.42	138.99
70	43.28	48.76	95.02	104.21	100	67.33	74.22	129.56	140.17

$\chi^2(f, P)$ は自由度  $f$  のカイ乗分布で上側確率  $P$  に対する座標の値を表わす記号であるが

この場合は両側確率の  $\alpha$  に対する座標の値がほしいので、 $P = \frac{\alpha}{2}$  および  $P = 1 - \frac{\alpha}{2}$  として  $\chi^2\left(f, \frac{\alpha}{2}\right)$ 、 $\chi^2\left(f, 1 - \frac{\alpha}{2}\right)$  を用いる。

$f$  の値が 100 をこえる場合は、 $\chi^2(f, P) = \frac{1}{2} \left( K_p + \sqrt{2f-1} \right)^2$  によって計算して求める。

ここに  $K_p$  はつぎの値である。

$P$	0.995	0.975	0.025	0.0
$K_p$	-2.58	-1.96	1.96	2.58