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	14.96	
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	9.1094949	
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	3.0181929	
	2.7386127	

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3000= 30*100) -

1496 (-

3000\1496 -

. 0.4986 :

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0.00545	0.01	0	1	1	8	1
0.01332	0.03	2	1	3	9	2
0.02798	0.04	1	3	4	10	3
0.05088	0.04	-1	5	4	11	4
0.08055	0.09	1	8	9	12	5
0.11154	0.07	-4	11	7	13	6
0.13544	0.16	2	14	16	14	7
0.14446	0.12	-2	14	12	15	8
0.13544	0.18	4	14	18	16	9
0.11154	0.08	-3	11	8	17	10

0.08055	0.06	-2	8	6	18	11
0.05088	0.05	0	5	5	19	12
0.02798	0.04	1	3	4	20	13
0.01332	0.02	1	1	2	21	14
0.00013	0.01	1	0	1	25	15

3

0.00545

$$P[X=k] = C_k^n p^k (1-p)^{n-k} \quad (1)$$

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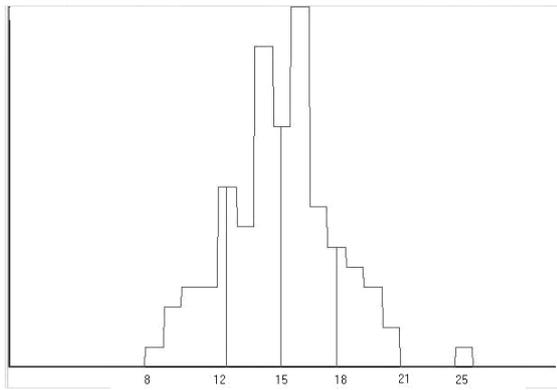
22

.(24 23

$$.(1) \quad 0.00545$$

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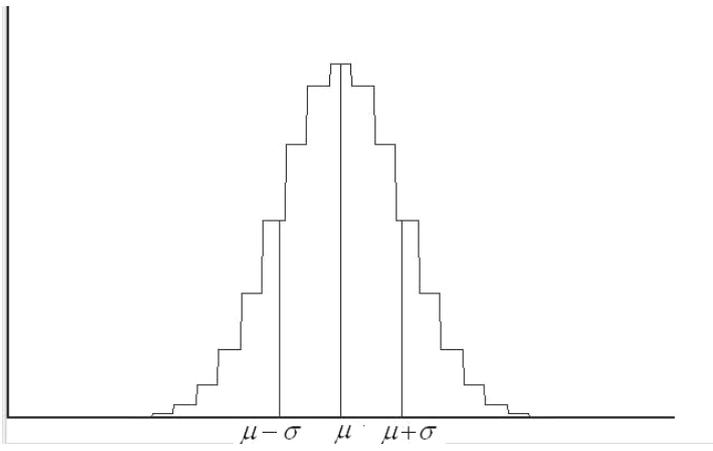
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μ

$\mu - \sigma$

$\mu + \sigma$

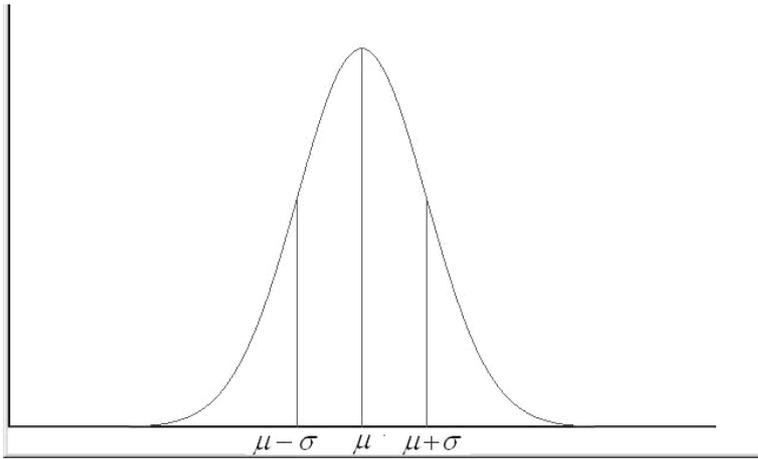
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(6)



6

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{1}{2}\left(\frac{x-\mu}{\sigma}\right)^2} = \frac{1}{6.86} e^{-\frac{(x-15)}{15}}$$

.(15)

: 5-3-8

$$B(k) = \sum_{j=0}^{j=k} C_j^n p^j (1-p)^{n-j}, \quad k=0...30, p=0.5, q=0.5, n=30 \quad (2)$$

$$F(k) = \int_{-\infty}^k \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}, \quad k=0...30.$$

$$S(k) = \sum_{j=0}^{j=k} R^j \quad k=0 \dots 30 \quad (3)$$

.() j R^j

:7

0.00806	0.01	0	1	1	8	1
0.02139	0.04	2	2	4	9	2
0.04937	0.08	1	5	8	10	3
0.10024	0.12	-1	10	12	11	4
0.18080	0.21	1	18	21	12	5
0.29233	0.28	-4	29	28	13	6
0.42777	0.44	2	43	44	14	7
0.57223	0.56	-2	57	56	15	8
0.70767	0.74	4	71	74	16	9
0.81920	0.82	-3	82	82	17	10
0.89976	0.88	-2	90	88	18	11
0.95063	0.93	0	95	93	19	12
0.97861	0.97	1	98	97	20	13
0.99194	0.99	1	99	99	21	14
0.99997	1	1	99	100	25	15

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0.00806

k=7

.0.00545

.k=0 ... k=5 k=6

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4=3+1

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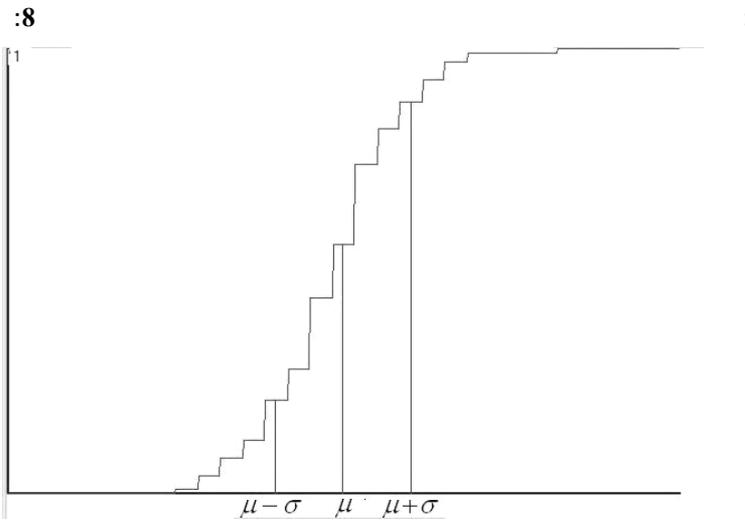
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100

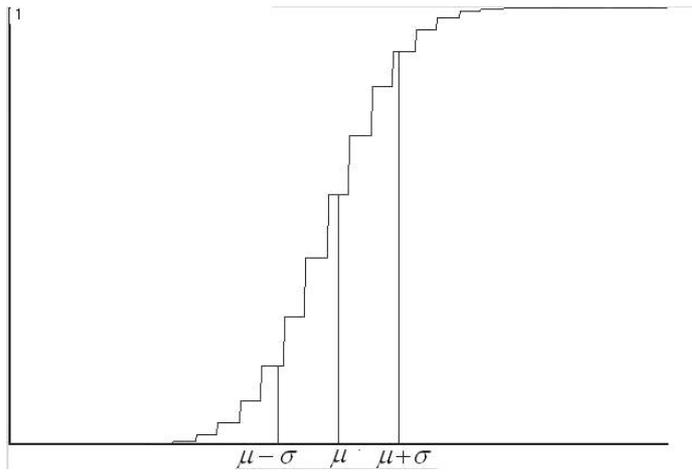
28 27 26

(0.99997-1)



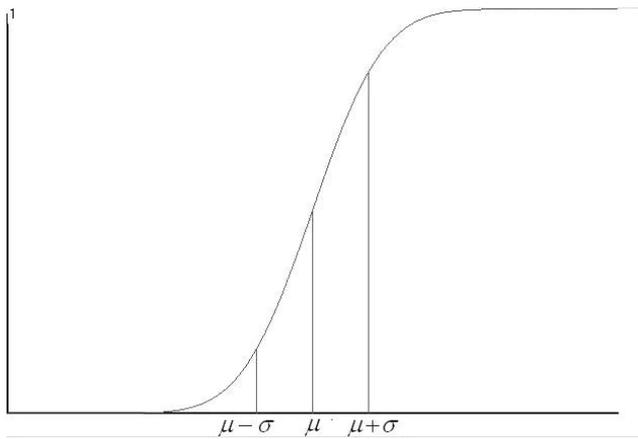
8

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18 12

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18 12

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:(12) 11 3

$(Q-E)^2 / E$	$(Q-E)^2$	Q-E	E	Q	
0.2857	4	-2	14	12	
0.38	16	4	42	46	
0.06349	4	-2	63	61	
0.2	16	-4	80	76	

12

$$\chi^2_{(0.05,3)} = 7.8$$

$$\sum \frac{(Q-E)^2}{E} = 0.9$$

.[3 2] 0.05

4-8

1-4-8

C	B	A	
.	.	*	1
.	*	.	Y
*	.	.	Y
.	.	*	Z
.	*	.	0
.	*	.	1
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10.12	
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6.9955555	
6.6666666	
2.6449112	
2.581988	

14

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14

0.337

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0.00265	0.01	1	0	1	3	1
0.00893	0.02	1	1	2	4	2
0.02322	0.01	-1	2	1	5	3
0.04838	0.03	-2	5	3	6	4
0.08294	0.11	3	8	11	7	5
0.11923	0.08	-4	12	8	8	6
0.14573	0.15	0	15	15	9	7
0.15302	0.1	-5	15	10	10	8
0.13910	0.17	3	14	17	11	9
0.11012	0.17	6	11	17	12	10
0.07624	0.07	-1	8	7	13	11
0.04629	0.03	-2	5	3	14	12
0.02469	0.02	0	2	2	15	13
0.01157	0.03	2	1	3	16	14

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q=2/3

P=1/3

$$B(k) = \sum_{j=0}^{j=k} C_j^n p^j (1-p)^{n-j}, \quad k=0 \dots 30, \quad n, p=10, \quad (2)$$

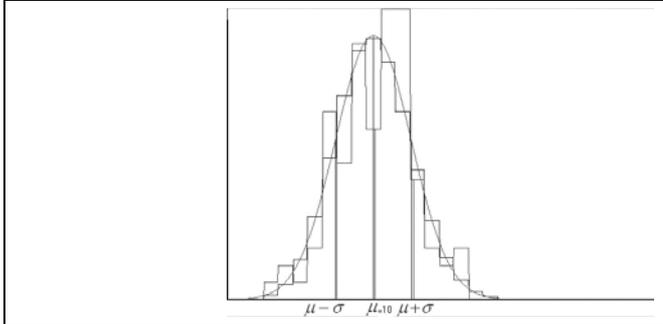
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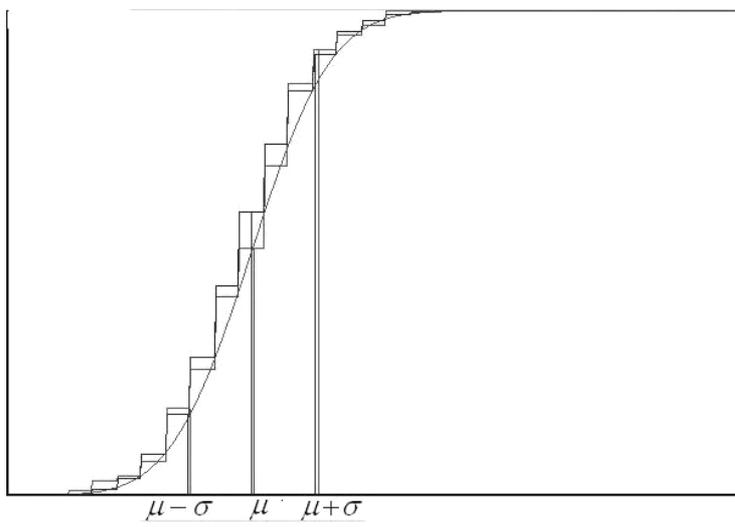
:17

0.00330	0.01	1	0	1	3	1
0.01223	0.03	2	1	3	4	2
0.03545	0.04	1	3	4	5	3
0.08384	0.07	-1	8	7	6	4
0.16678	0.18	2	16	18	7	5
0.28602	0.26	-2	28	26	8	6

0.43174	0.41	-2	43	41	9	7
0.58476	0.51	-7	58	51	10	8
0.72386	0.68	-4	72	68	11	9
0.83399	0.85	2	83	85	12	10
0.91023	0.92	1	91	92	13	11
0.95652	0.95	-1	96	95	14	12
0.98120	0.97	-1	98	97	15	13
0.99278	1	1	99	100	16	14

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30	2	55
30	13	53
	743	
	0.24766666	
	7	
	7.43	
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	5.0152525	
	5.625	
	2.2294759	
	2.3717082	

19

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212

0.00863	0.02	1	1	2	2	1
0.02685	0.01	-2	3	1	3	2
0.06042	0.05	-1	6	5	4	3
0.10473	0.12	2	10	12	5	4
0.14546	0.14	-1	15	14	6	5
0.16624	0.17	0	17	17	7	6
0.15931	0.21	5	16	21	8	7
0.12981	0.11	-2	13	11	9	8
0.09087	0.06	-3	9	6	10	9
0.05507	0.07	1	6	7	11	10
0.02906	0.03	0	3	3	12	11
0.01341	0.01	0	1	1	13	12

20

:(21)

0.01060	0.01	1	0	1	2	1
0.03745	0.03	-1	4	3	3	2
0.09787	0.08	-2	10	8	4	3
0.20260	0.2	0	20	20	5	4
0.34805	0.34	-1	35	34	6	5
0.51429	0.51	-1	52	51	7	6
0.67360	0.72	4	68	72	8	7
0.80341	0.83	2	81	83	9	8
0.89427	0.89	-1	90	89	10	9
0.94934	0.96	0	96	96	11	10
0.97841	0.99	0	99	99	12	11
0.99182	1	0	100	100	13	12

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