	A	B
=		
1	min	
2	max	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

A1 "min"

1) Given Interval Notation (11.5 ,53.9)

p=(53.9 +11.5)/2

=65.4 /2

=32.7

E = (53.9 −11.5)/2

=42.4 /2

=21.2

Conjunction notation

11.5 <**p**<53.9

Tolerance Notation

32.7 ±21.2

	A	B
=		
1	min	
2	max	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

A1 "min"

2) Given Conjunction Notation $22.9 < p < 64.7$

$p=(64.7+22.9)/2$

$=87.6/2$

$=43.8$

$E = (64.7-22.9)/2$

$=41.8/2$

$=20.9$

Interval notation

$(22.9, 64.7)$

Tolerance Notation

43.8 ± 20.9

	B
1	96.88
2	12.52
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

B3

3) Given p = 96.88 E =12.52

Interval notation

$(96.88-12.52, 96.88+12.52)$

$(84.36, 109.4)$

Conjunction notation

$84.36 < p < 109.4$

Tolerance Notation

96.88 ± 12.52

	A	B
=		
1	p	
2	E	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

A1 p

4) Given Tolerance Notation 95.8 ± 29.6

p = 95.8

E = 29.6

Interval notation

$(95.8 - 29.6, 95.8 + 29.6)$

$(66.2, 125.4)$

Conjunction notation

$66.2 < p < 125.4$

	A	B
=		
1	n	
2	x	
3	CL	
4	CV	famo
5		2
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

A1 n

5) Given n=275 x=250 Confidence Level =99 %

Implied Alpha =100%−99 %=1. % =0.01

Implied 1/2 Alpha=$\frac{1}{2}$ 1. =0.5 % =0.005

p =250 /275 =0.909091 q = 1−0.909091 =0.090909

CV =2.575 (famous)

E =2.575 √ [0.909091)(0.090909)/(275)]

E =0.044639

Tolerance Notation 0.909091 ±0.044639

Interval notation

(0.909091 −0.044639 ,0.909091 +0.044639)

(0.864452 ,0.95373)

Conjunction notation

0.864452 <**p**<0.95373

	A	B
=		
1	n	9
2	x	
3	CL	
4	CV	not famo
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

A1 n

6) Given n=900 x=153 Confidence Level =72 %

Implied Alpha =100%−72 %=28. % =0.28

Implied 1/2 Alpha=$\frac{1}{2}$ 28. =14. % =0.14

p =153 /900 =0.17 q = 1−0.17 =0.83

CV =invnorm(0.14 ,0,1) = -1.08032 (use positive value)

E =1.08032 √ [0.17)(0.83)/(900)]

E =0.013527

Tolerance Notation 0.17 ±0.013527

Interval notation

(0.17 −0.013527 ,0.17 +0.013527)

(0.156473 ,0.183527)

Conjunction notation

0.156473 <p<0.183527