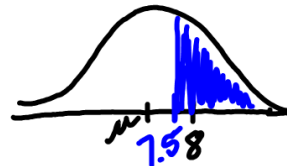


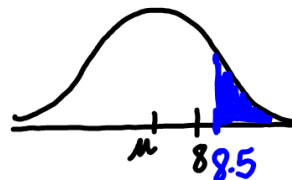
6.6

Continuity Correction

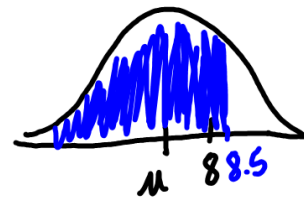
At least 8
8 included
Shade right



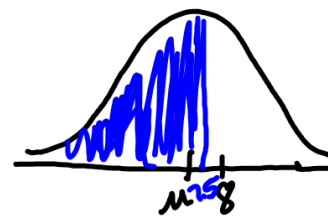
More than 8
8 not included
Shade right



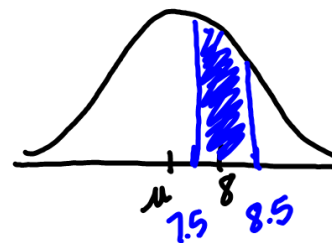
At most 8
8 included
Shade left



Fewer than 8
8 not included
Shade left

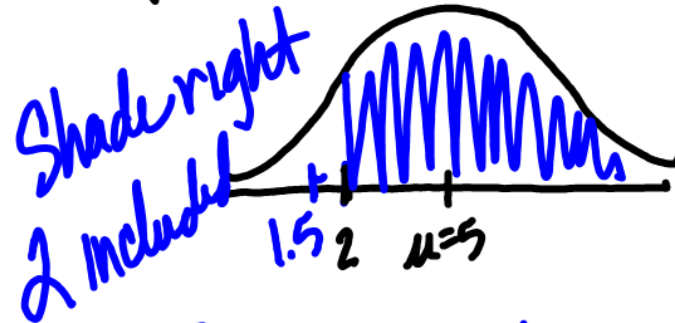


Exactly 8

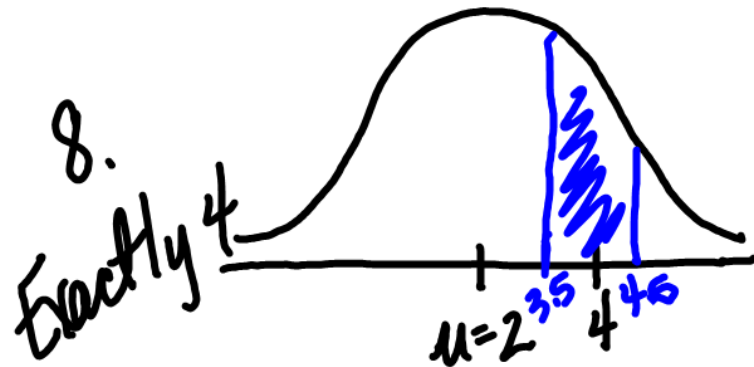


p 306

6. At least 2 tickets



Area Right of 1.5



Area between 3.5 and 4.5

p 300

n number trials

p probability
successesq probability
failure $1-p$

x number of successes

$$np \geq 5$$

$$nq \geq 5$$

$$\mu = np$$

$$\sigma = \sqrt{npq}$$

Ch 5
formula

Continuity Correction

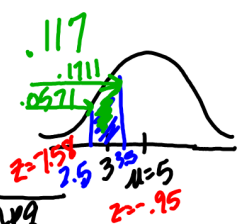
p 306

13. $n=10$ $p=.5$ $x=3$
 $P(3)$

a) Appendix A p 749
 750



Exactly 3
 \downarrow
 3



$\mu = np$
 $= 10(.5)$
 $\mu = 5$

$\sigma = \sqrt{npq}$
 $\sigma = \sqrt{10(.5)(.5)}$
 $\sigma = 1.581$

$Z = \frac{x - \mu}{\sigma}$

$Z = \frac{2.5 - 5}{1.581}$ $Z = \frac{3.5 - 5}{1.581}$

$Z = -1.58$ $Z = -.95$

.114

15. $np \geq 5$ $8(.9)$ 7.2
 $nq \geq 5$ $8(.1)$.8

17. $n = 40,000$

$p = .03$

$q = .97$

$x = 1300$

$np \geq 5$

$1200 \geq 5$

$nq \geq 5$

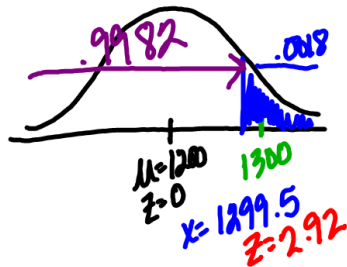
At least 1300

$\mu = np$
 $= 40000(.03)$
 $= 1200$

$\sigma = \sqrt{npq}$

$\sigma = \sqrt{40000(.03)(.97)}$

$\sigma = 34.12$



At least
 1300
 Shade right
 include
 1300

$z = \frac{1299.5 - 1200}{34.12}$

$z = 2.92 \rightarrow .9982$

.0018

.18%