1) a) $\frac{1.03-1}{0.1/\sqrt{50}} = \frac{0.03}{0.01414}$ $P(Z>2.12) = 1-0.9830$
$= 0.017$

b) $0.017 = 1.7\%$

3) a) $\frac{231.7-232}{\frac{2.19}{\sqrt{66}}} = -1.11$ $2P(Z<-1.11)$
$2(0.1335)$
$= 0.2670$

b) $0.2670 = 26.70\%$

5) a) $\frac{4.5-5.4}{2.7/\sqrt{80}} = -2.98$ $P = P(Z<-2.93)$
$= 0.0014$

b) Since the P value is less than we conclude the number of sick days less than 5.4

7) a) $\frac{850-900}{153/\sqrt{60}} = -2.531$ Pval $= 0.0070$

b) It is less than 900 considered the information that is provided

1) $P = 0.5$

3) a) Not possible because the smaller the value the more true it is

b) Not possible because we're not sure if H_0 is true

c) not possible because P val is not prob. of H_0

d) Might be because H_0 might be true but unlikely

e) The smaller the P value the more certain we are

f) The smaller the P val the more possible it is

5) a) True
b) False
c) True
d) False

11) a) $H_0 : \mu \leq 8$
b) $H_0 : \mu \leq 6000$
c) $H_0 : \mu = 10$

15) $H_0 : \mu \leq 7$ Level of Sig. $a = 0.05$
Alt $H_1 : \mu > 7$ P val $= 0.40$
No, the given conclusion is incorrect.

21) a) Yes, since $\mu_0 = 3.5$ is greater than the 95%, the p val. of testing $H_0 : \mu \geq 3.5$ will be less than 0.05
b) No, we need to know the 99% upper confidence bound