

In class

$$1) \frac{110}{150} = 0.7333$$

$$\text{Hypo } p_0 = 0.70$$

$$\sqrt{\frac{0.7 \cdot 0.3}{150}}$$

$$p = 0.03742$$

$$z = 0.891$$

$$H_0: P = 0.7$$

$$H_a: P \neq 0.7$$

$$P = 0.379$$

$$P \text{ difference} = 0.0333$$

$$P > 0.05$$

 $H_0 \checkmark$

Since $P > 0.05$, H_0 is accepted.

2) a)

b)

c)

d)

3) a) Null Hypothesis: $\mu = 2$
Alt Hypothesis $\mu \neq 2$

$$b) \frac{s}{\sqrt{n}} = \frac{0.52391}{\sqrt{20}}$$

$$= 0.11715$$

$$t = \frac{(1.881 - 2)}{0.11715} = -1.0158$$

$$c) p = 0.315$$

$$d) \alpha = 0.05$$

$$ndf \ n-1 = 20-1 = 19$$

$$t = \pm 2.0930$$

$$t = -1.0158 > t = -2.0930$$

Difference not significant

Fail to reject null hypothesis

e) The data doesn't support claim
of the mean surface coated
Pipe differ from 2.

Not sufficient evidence

f) Type II error, since mean differs from μ_0 . Fail to reject false null hypothesis.