

# HW 114

2.  $\mu = 63, \sigma = 1.4$

a)  $z = \frac{64.4 - 63}{1.4} = 1$

b)  $z = \frac{58.8 - 63}{1.4} = -3$

c)  $z = \frac{65.2 - 63}{1.4} = 1.57$

d)  $z = \frac{62 - 63}{1.4} = 0.71$

3.  $\mu = 125, \sigma = 2.4$

a)  $-1 = \frac{x - 125}{2.4}$

$-2.4 = x - 125$

$122.6 = x$

b)  $2 = \frac{x - 125}{2}$

$4 = x - 125$

$129 = x$

c)  $2.9 = \frac{x - 125}{1.4}$

$4.06 = x - 125$

$129.06 = x$

d)  $-0.5 = \frac{x - 125}{1.4}$

$-0.7 = x - 125$

$124.3 = x$

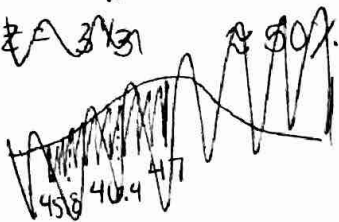
6. a)  ~~$47 = \mu$~~   
 ~~$\sigma = 1.6$~~   
 ~~$z = 3.31$~~   
 ~~$50\%$~~

calculator

$(45, 47, 47, 0.6) = 0.4996$

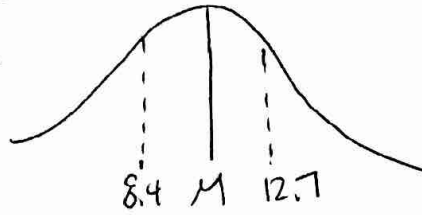
↓

$49.96\%$



pl 675

4.



a)  $\frac{12.7 + 8.4}{2} = 10.55$

$\mu = 10.55 \text{ lbs}$

$\sigma = 2.15 \text{ lbs}$

b) 95% is  $\pm 2\sigma$

$\mu + 2(\sigma) = 10.55 + 2(2.15) = 14.85$

$\mu - 2\sigma = 10.55 - 2(2.15) = 6.25$

$6.25 \text{ lbs} - 14.85 \text{ lbs}$

6. a) normcdf(180, 200, 175, 14) = 32.3

↓  
 $32.3\%$

b) normcdf(0, 160, 175, 14) = .142

↓  
 $14.2\%$