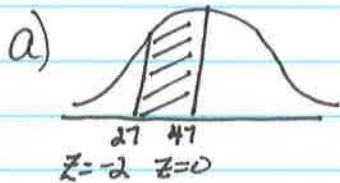


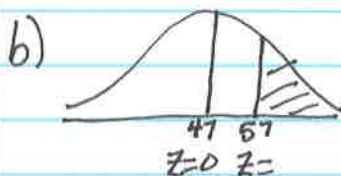
Chap 6
 Prob. Dist for
 Cont. Ran Variables

1. $\mu = 47$ $\sigma = 10$



$$z = \frac{27 - 47}{10} = -2 \quad z = \frac{47 - 47}{10} = 0$$

$$.5 - .0228 = \boxed{.4772}$$



$$z = \frac{57 - 47}{10} = 1 \quad 1 - .8413 = \boxed{.1587}$$

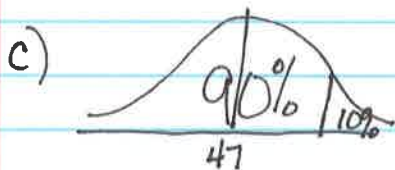
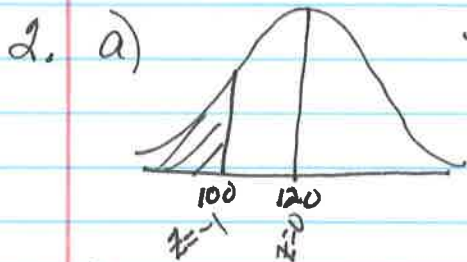
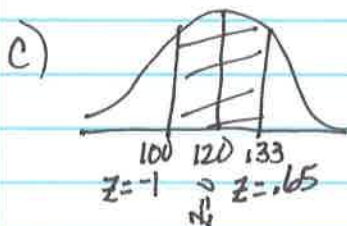


table: $z = 1.28$ calc: 1.28
 $x = 47 + 1.28(10) = 59.8$
 $\boxed{59.8 \text{ minutes}}$



$\mu = 120$ $\sigma = 20$ $z = \frac{100 - 120}{20} = -1$ $\boxed{.1587}$

b) $1 - .1587 = \boxed{.8413}$



$$z = -1 \quad z = \frac{133 - 120}{20} = .65$$

$$.7422 - .1587 = \boxed{.5835}$$

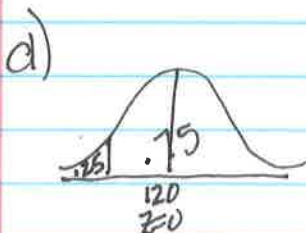
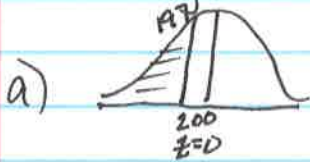


table: $-.67 = z$ calc $z = -.67$
 $x = \text{table } 120 + (-.67)20 = \boxed{106.6}$

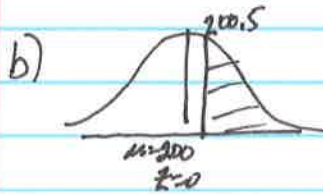
Chap 6
Prob Dist for Cont
Rand. Variables

3. $\mu = 200g$ $\sigma = 2g$



$$z = \frac{197 - 200}{2} = -1.5$$

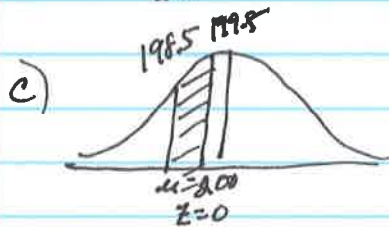
$$[0.0668]$$



$$z = \frac{200.5 - 200}{2} = 0.25$$

$$1 - .5987$$

$$[.4013]$$



$$z = \frac{199.5 - 200}{2} = -0.25$$

$$z = \frac{198.5 - 200}{2} = -0.75$$

$$.4013 - .2266$$

$$[.1747]$$