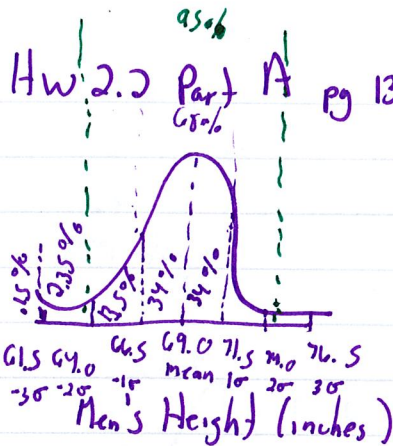


Hw 2.2 Part A pg 131-132 41, 43, 45, 47, 49, 51

(41)



(43) a) 95% fall between -2σ and 2σ
percent taller than 74 in
 $100 - 95 = \frac{5\%}{2} = 2.5\%$

approximately 2.5%

b) 64.0 and 74.0 inches

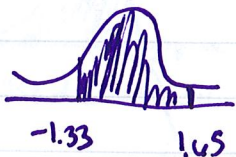
c) between 64 and 66.5 inches
 $\frac{95\% - 6.8\%}{2} = \frac{27\%}{2} = 13.5\%$

d) Height of 71.5 has 84% of heights below it
84th percentile

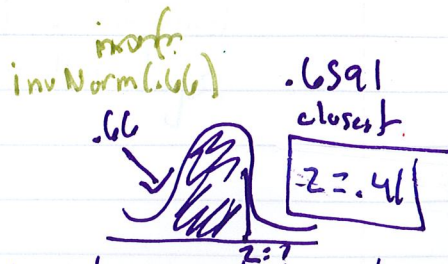
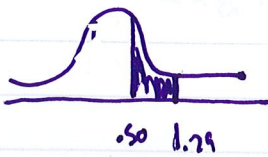
(45) The standard deviation is approximately 0.2 for the tall red curve.
The standard deviation is approximately 0.5 for the short purple curve.

(47) a) $Z < 2.85 = .9978$ b) $Z > 2.85 = 1 - .9978 = .0022$
c) $Z > 1.66 = 1 - .0485 = .9515$
d) $-1.66 < Z < 2.85 = .9978 - .0485 = .9493$

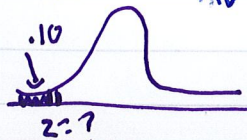
(49) a) $-1.33 < Z < 1.65 = .9505 - .0918 = .8587$



b) $.50 < Z < 1.79$
 $.9633 - .6915 = .2718$
inv Norm(.10, 0, 1)



(51) a) 10th percentile
 $Z = -1.28$



b) 34% observations greater is at 66th percentile