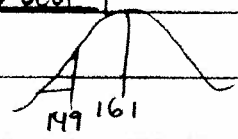


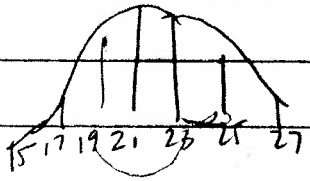
P. 775-76 | 2-13 all

2) $\mu = 161$
 $\sigma = 12$



$$\frac{\frac{91}{100} - \frac{61}{100}}{\frac{12}{\sqrt{2}}} = 16\% \leftarrow P(x < 149)$$

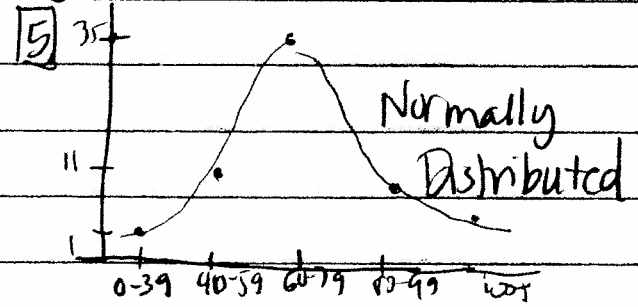
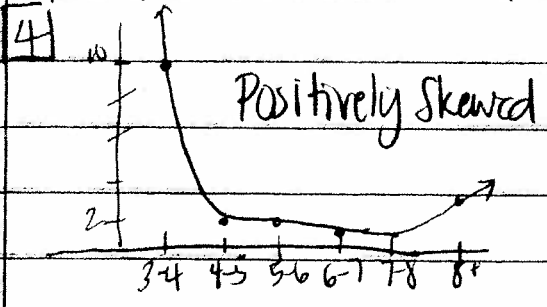
3) $\mu = 21$
 $\sigma = 2$



a. What %
 betw. 19 & 23? 68%

b. % betw 23 & 25 13.5%

c. Prob. score betw. 17 & 25 95%



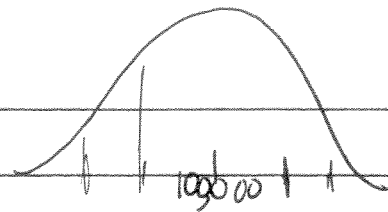
6) $\mu = 74$, $\sigma = 6$, $P(x > 86)$
 74 80 86
 2.5%

7) $\mu = 13$, $\sigma = .4$, $P(x < 12.6)$
 12.6 13
 16%

8) $\mu = 63$, $\sigma = 4$, $P(59 < X < 71)$
 59 63 67 71
 $63 + 13.5 = 81.5\%$

9) $\mu = 91$, $\sigma = 6$, $P(73 < X < 103)$
 73 91 85 91 97 103 1
 97%

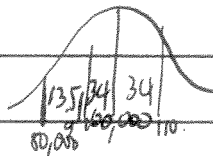
10



$\mu = 100,000$ $\sigma = 10,000$

The Co. makes 20,000 buffers a month

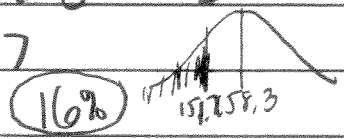
- a. $90,000 - 110,000 = 68\%$ of 20,000 = **13,600**
- b. $> 120,000$ miles 2.5% of 20,000 = **500**
- c. $< 90,000$ miles $2.5 + 13.5 = 16\%$ of 20,000 = **3,200**
- d. $80,000 \leq 110,000$ miles. **81.5%**



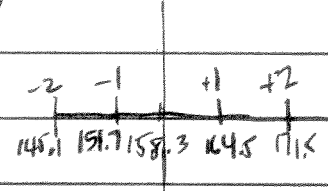
11

Cholesterol level for adult males of a specific racial group is normally dist. w/ $\mu = 158.3$ & $\sigma = 6.6$

a. What % of males have a cholest. < 151.7



b. How many of the 900 men have a cholest. betw. 145.1 & 171.5?

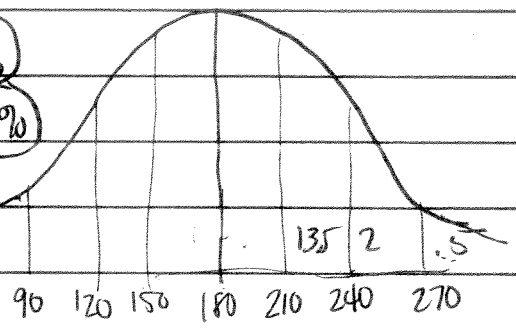


95% of 900 = **855 men**

12

Shelf life of a snack chip is norm. dist. w/ a mean of 180 days & a SD of 30 days.

- a. % lasts betw. 150 & 210 days? **68%**
- b. % lasts betw. 180 & 210 days? **34%**
- c. % lasts less than 90 days? **5%**
- d. % lasts > 210 days? **16%**



13

Vending Mach. disp 8oz coffee ND. w/ $\sigma = 0.3$ oz

- a. % of time will you get > 8 oz? **50%**
- b. % of time will you get < 8 oz? **50%**
- c. % betw. 7.4 & 8.6 oz **95%**

