

KING

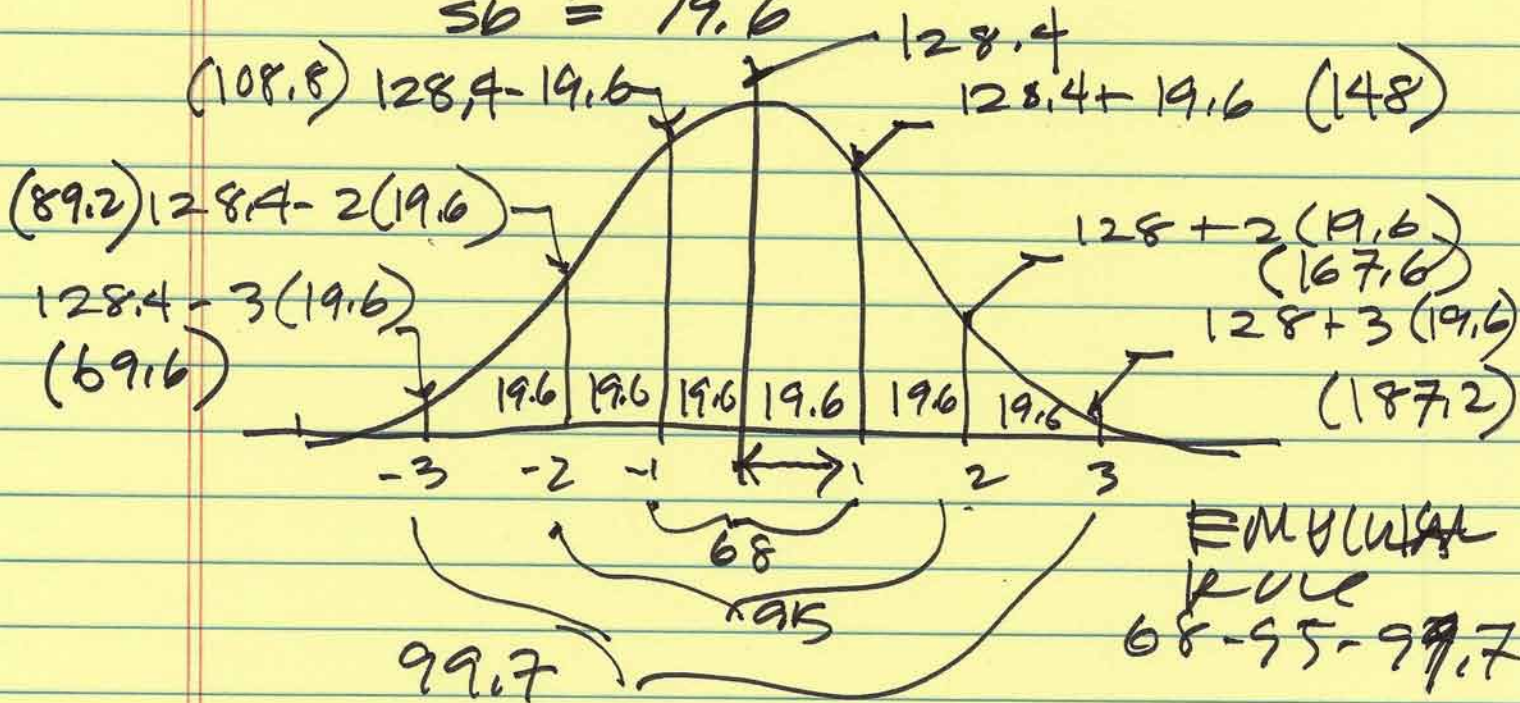
6.3 + 6.4

NORMAL DISTRIBUTION

~~6.3 + 6.4~~ (p.269 1,2,3,5,7,19; p.276 3,4,5)

#1 MEAN = 128.4

SD = 19.6

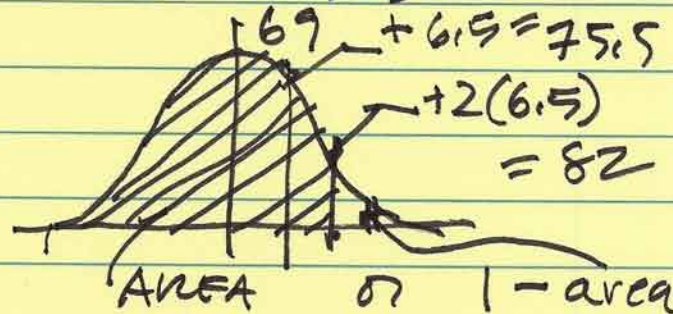


Ⓐ 68% = 108.8 to 148

Ⓑ 95% = 89.2 to 167.6

Ⓒ 99.7% = 69.6 to 187.2

2. NORMAL DIST.
 MEAN = 69"
 SD = 6.5
 $X < 82$



∴ .95 + .0235 + .0015 = .975

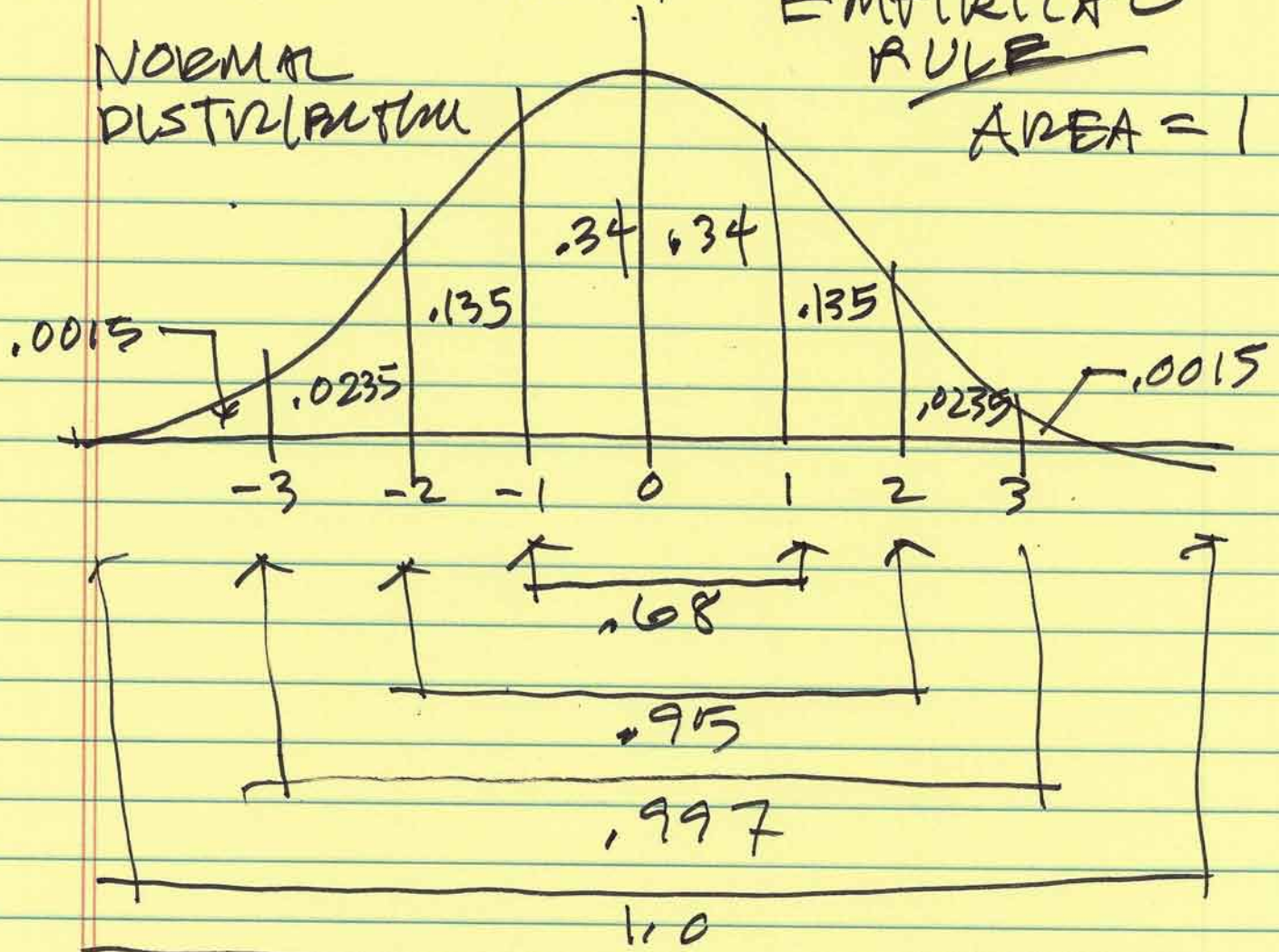
$(.0235)$
 $+ .0015$

 $1 - (.025)$
 $= .975$

REFERENCE SHEET

EMPIRICAL
RULE

AREA = 1



$$\frac{.68}{2} = .34$$

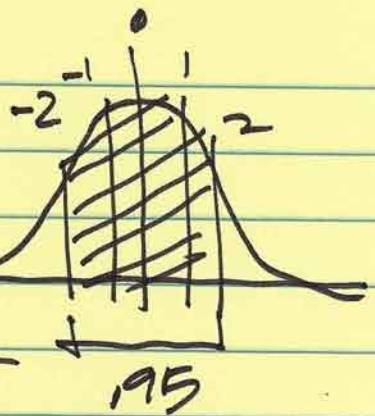
$$\frac{(.95 - .68)}{2} = .135$$

$$\frac{(.997 - .95)}{2} = .0235$$

$$\frac{(1 - .997)}{2} = .0015$$

3. $P\{-2 < Z < 2\}$

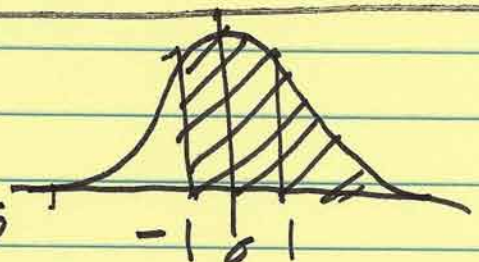
(b)



4. $P\{Z > -1\}$

$.68 + .135 + .0235 + .0015$

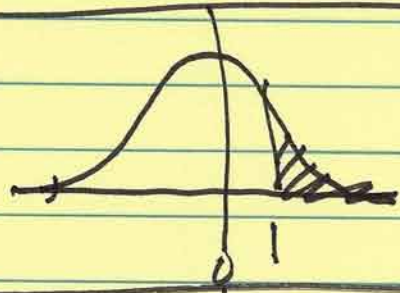
(c) $\rightarrow = .84$



5. $P\{Z > 1\}$

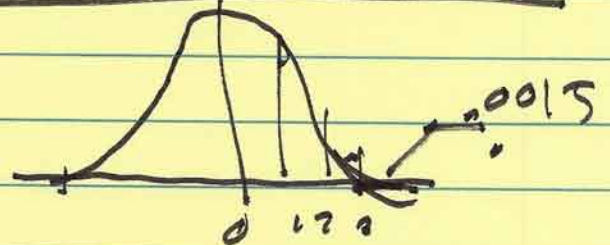
$.135 + .0235 + .0015$

(d) $\rightarrow = .16$



6. $P\{Z > 3\}$

(e) $\rightarrow .0015$

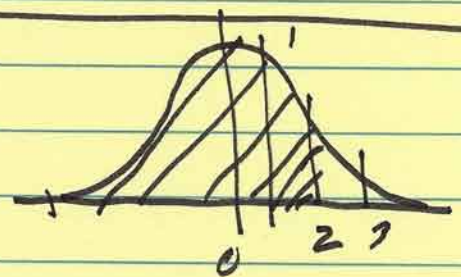


7. $P\{Z < 2\}$

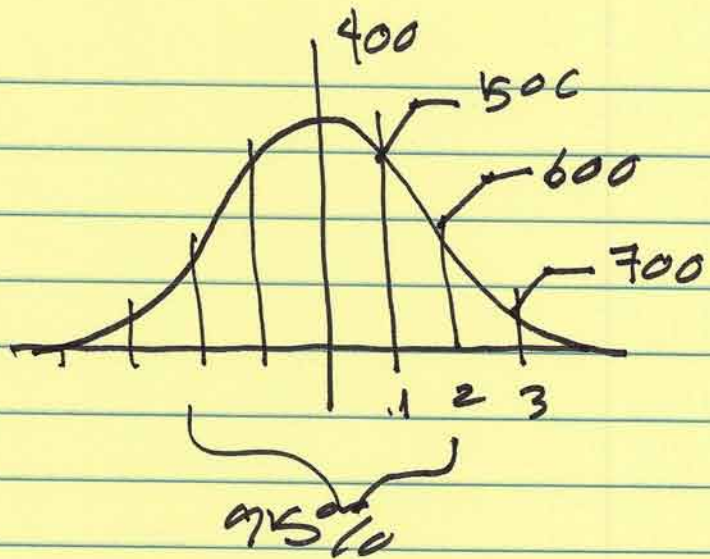
$1 - .0235 + .0015$

$1 - .025 = .975$

(f) \rightarrow



119 APT. TEST
MEAN = 400
SD = 100
TOP 5%

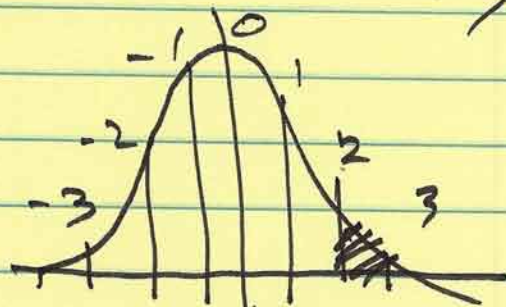
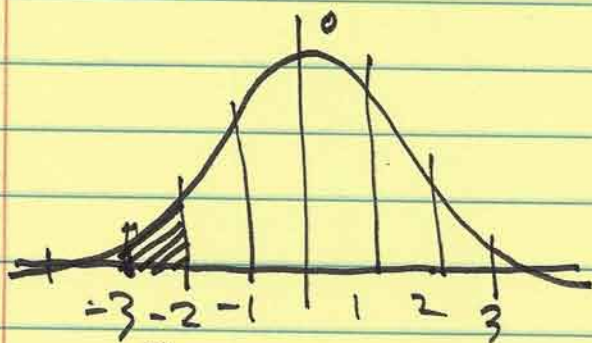


600 AND UP
IS TOP 5%

- | | | |
|-----|--------------------|------------|
| (a) | 400 400 | NO |
| (b) | 500 450 | NO |
| (c) | 500 | NO |
| (d) | 600 | YES |

(p. 276 3, 4, 5)

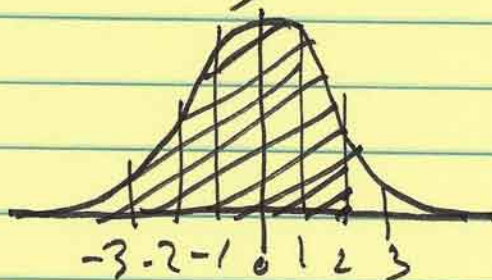
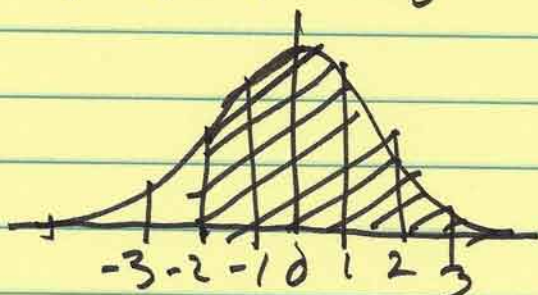
$$3. P\{-3 < Z < -2\} = P\{Z < Z < ?\}$$



↑
SYMMETRY
RULES

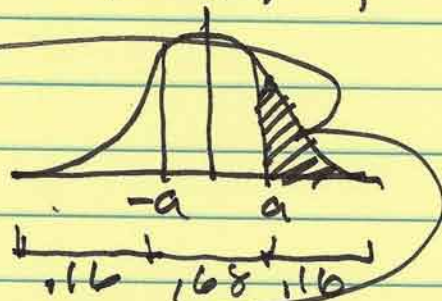
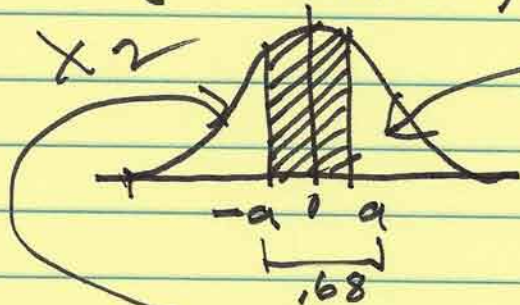
↑
? = 3

$$4. P\{Z > -2\} = P\{Z < 2\}$$



↑ SYMMETRY ↓

$$5. P\{-a < Z < a\} = 2P(Z < a) - 1$$



$$.68 = 2(.16) - 1$$

$$.68 = .32 - 1$$

$$\frac{(1 - .68)}{2} = .16$$