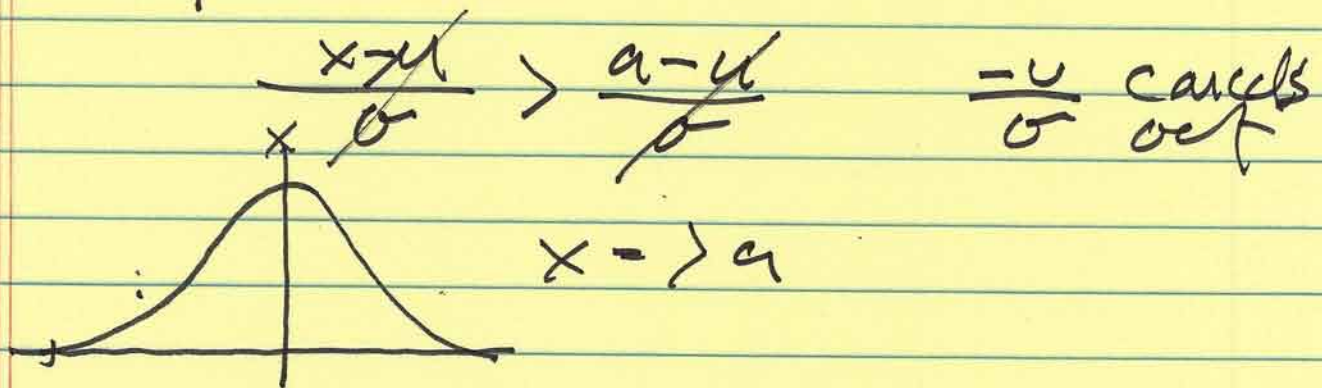


KING 2 score

6.5 + 6.7 (281 # 1, 3, 5, 9, 13 ; P 289 # 1, 3, 9, 13)

↳ why  $x > a$



3. Hair dryer mean = 40 months  
SD = 8 months  
3 YEARS = 36 months

$$z = \frac{x - \mu}{\sigma}$$

$$z = \frac{36 - 40}{8} = \frac{-4}{8} = -0.50$$

LOOK UP ON TABLE 6.1 0.50 = .6915

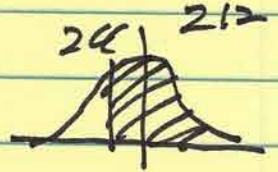
$$1 - .6915 = \underline{\underline{.3085}}$$

5. STAMPED

$$\begin{aligned} \text{mean} &= 212 \\ \text{SD} &= 40 \end{aligned}$$

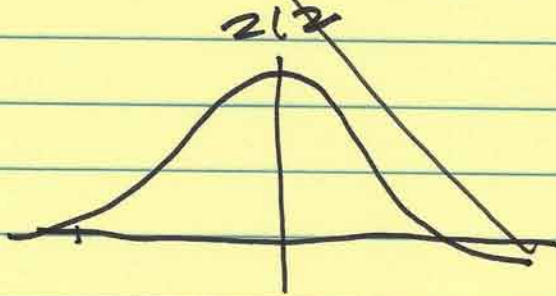
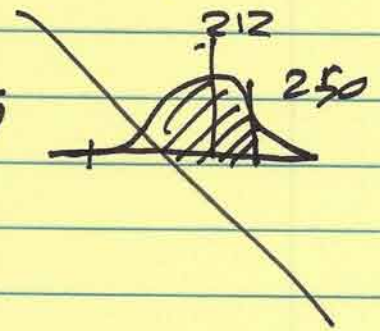
$$\textcircled{a} P(Z > 200) = \frac{212 - 200}{40} = 0.3$$

$$\text{LOOKUP } 0.3 = \underline{\underline{.6179}}$$



$$\textcircled{b} P(Z < 250) = \frac{250 - 212}{40} = 1.25$$

$$\text{LOOKUP } 1.25 = \underline{\underline{.8944}}$$



$$\textcircled{c} P(Z < 250) = \frac{250 - 212}{40} = 0.95$$

$$\text{LOOKUP } 0.95 = \underline{\underline{.8289}}$$

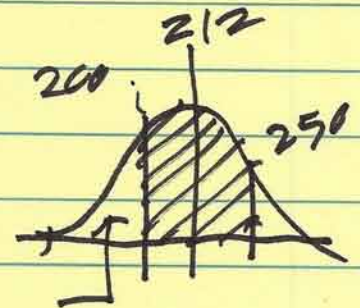


$$\textcircled{d} P(200 < Z < 250)$$

~~LOOKUP 0.3 = .6179~~

$$1 - .6179 = .3821$$

$$\underline{\underline{.8289}} - \underline{\underline{.3821}} = \underline{\underline{.4468}}$$

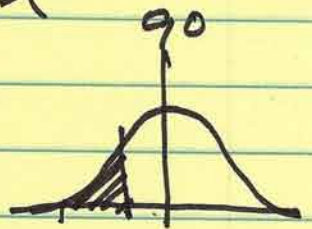


9. LOAN TIME    MEAN = 90 min,  
SD = 15 min

①  $z < 75 = \frac{75-90}{15} = -1.0$

LOOKUP 1.0 = .8413

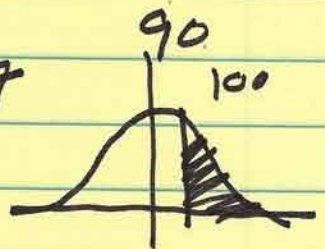
$1 - .8413 = \underline{\underline{.1587}}$



②  $z > 100 = \frac{100-90}{15} = .66667$

LOOKUP 0.67 = .7486

$1 - .7486 = \underline{\underline{.2514}}$



③  $90 > z > 120$

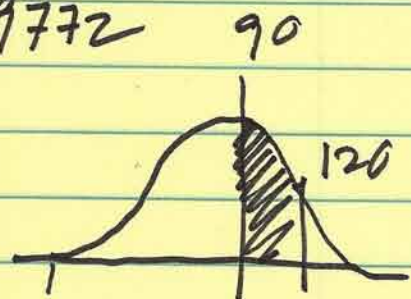
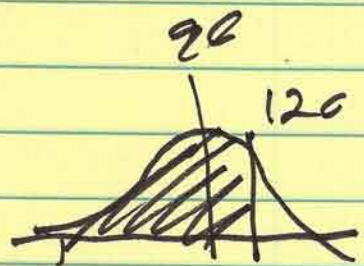
$\frac{90-90}{15} = 0$

LOOKUP 0 = .5

$\frac{120-90}{15} = 2.0$

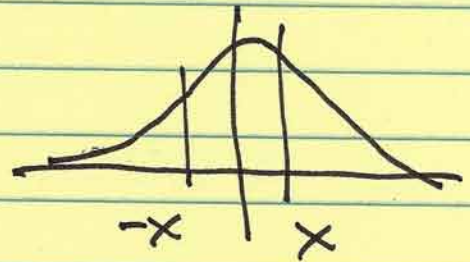
LOOKUP 2 = ~~.9772~~ .9772

$.9772 - .50 = \underline{\underline{.4772}}$



13, mean = 10  
② sb = 49

6.31 how  
1%



$$Z_{.01} = \frac{X-10}{49}$$

$$1.5040 = \frac{X-10}{49}$$

$$49(1.5040) = X-10$$

$$X = 49(1.5040) + 10 = 84.696$$

$$1.5040 = \frac{X-10}{7}$$

17.528

?

(P. 289 1, 3, 9, 13)

1. a	Z 0.07	.5279
b	0.12	.5478
c	0.30	.6179
d	0.03	.5120
e	0.63	.7357
f	0.50	.6195
g	0.95	.8289
h	0.008 $\approx$ 0.01	.5040

3.  $X = \text{normal}$     mean = 50  
SD = 6  
 $P\{X > x\} = 0.15$      $Z_{0.15} = \frac{X - 50}{6}$

50  
57.68  
61.76  
40.16  
57.02

NEXT  
PAGE

∴  $X = \text{NORMAL}$   
MEAN = 50  
SD = 6

---

①  $P\{X > x\} = 0.5$  Look up 1500 = 0

$$0 = \frac{x - 50}{6}$$

$$50 + 6(0) = x = \underline{\underline{50}}$$

---

②  $P\{X > x\} = .10$   $1 - .10 = .9000 \approx 1.28$

$$1.28 = \frac{x - 50}{6}$$

$$50 + 6(1.28) = x = \underline{\underline{57.68}}$$

---

③  $P\{X > x\} = .025$   $1 - .025 = .975 \approx 1.96$

$$1.96 = \frac{x - 50}{6}$$

$$50 + 6(1.96) = x = \underline{\underline{61.76}}$$

---

④  $P\{X \leq x\} = 0.05$   $1 - .05 = .9500 =$   
 $-1.645 = \frac{x - 50}{6}$   $-1.645$

$$50 + 6(-1.645) = x = \underline{\underline{40.13}}$$

---

⑤  $P\{X < x\} = .188$   $.188 \approx 1.175$

$$1.175 = \frac{x - 50}{6}$$

$$50 + 6(1.175) = x = \underline{\underline{57.05}}$$

$$9. \text{ mean} = 500$$

$$SD = 150$$

AT WHAT POSADEF DO 5% SUME

$$1.645 = \frac{X - 500}{150}$$

$$1 - .05 = .9500$$

$$Z_{.95} = 1.645$$

$$500 + 150(1.645) = X$$

$$500 + 246.75 = X = 746.75$$

---

$$13. \text{ mean} = 106$$

$$SD = 8$$

20% Lower

$$1 - .20 = .80$$

$$Z = .84$$

$$\frac{X - 106}{8} = .84$$

$$X = 8(.84) + 106$$

$$= -6.72 + 106$$

$$= 99.28$$