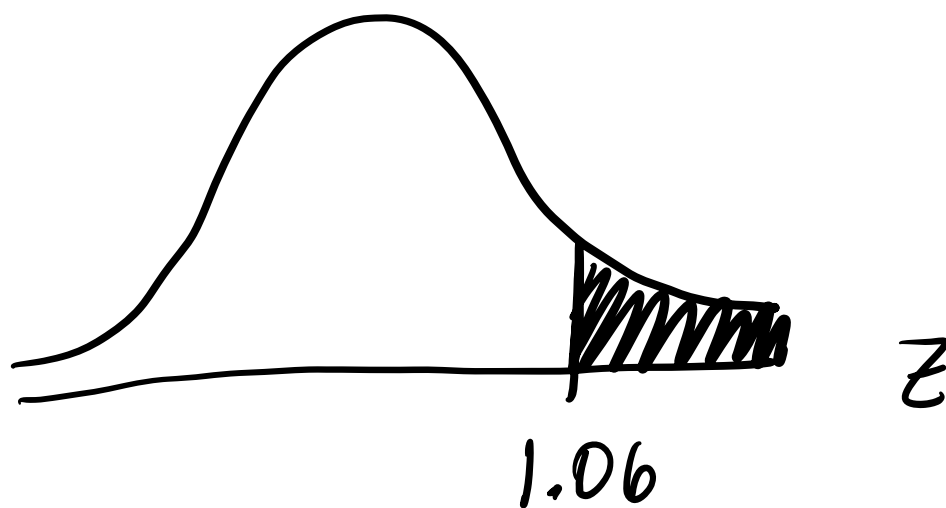
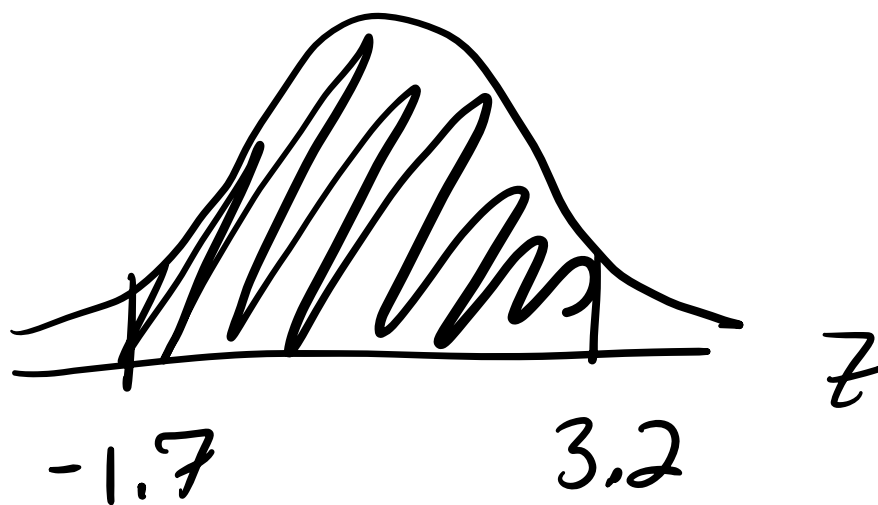


**4b** Example:

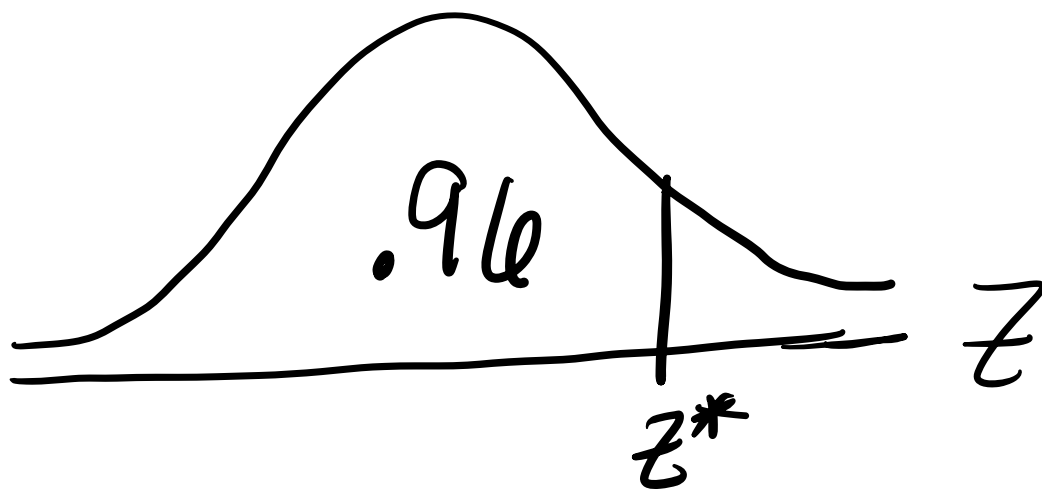
A.



B.



C.

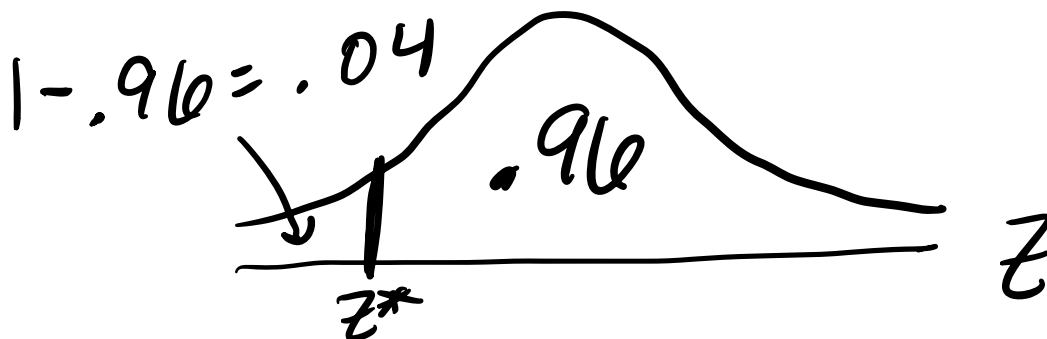


$$P(Z \leq z^*) = 0.96$$

$$z^* = \text{NORM.S.INV}(.96)$$

---

$$P(Z \geq z^*) = 0.96$$



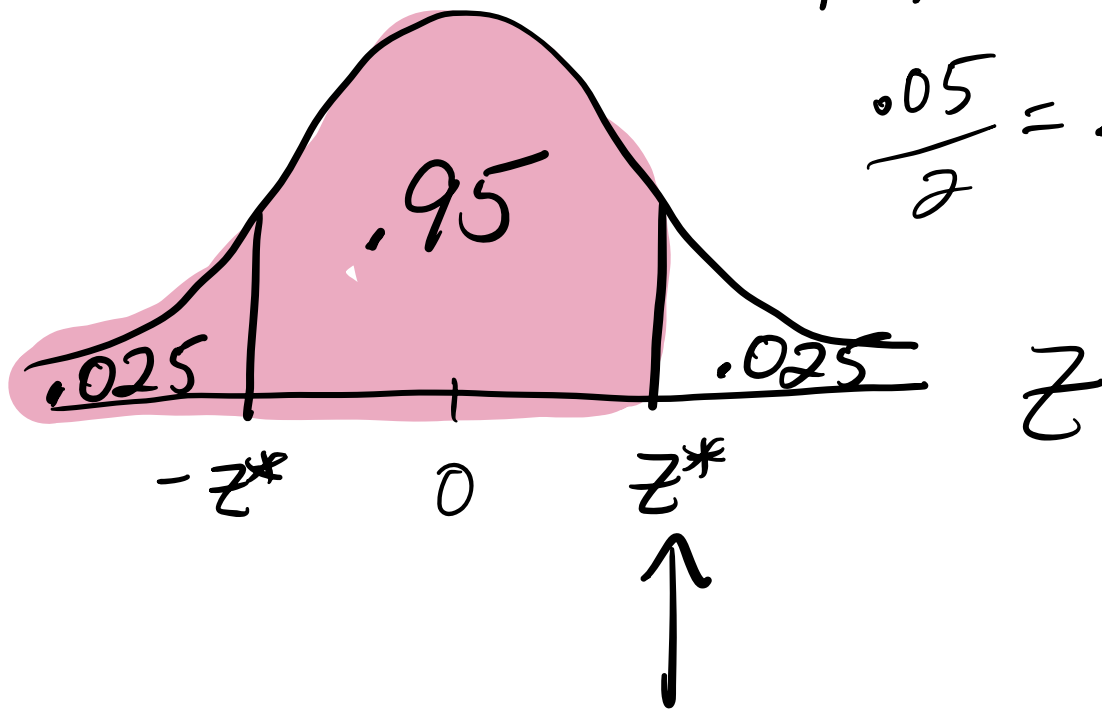
$$z^* = \text{NORM.S.INV}(.04)$$

---

D.  $P(-z^* \leq Z \leq z^*) = 0.95$

$$1 - .95 = .05$$

$$\frac{.05}{2} = .025$$



$$z^* = \text{NORM.S.INV}(.95 + .025)$$

$$= \text{NORM.S.INV}(0.975)$$

4c Example:

$$\sigma = 5$$

$$\mu = 38$$

---

1.  $P(X < 32)$

$$= \text{NORM.DIST}(32, 38, 5, 1)$$

---

2.  $P(X > 40)$

$$= 1 - \text{NORM.DIST}(40, 38, 5, 1)$$

$$3. \quad P(35 \leq X \leq 40)$$

$$= \text{NORM.DIST}(40, \mu, \sigma, 1)$$

$$- \text{NORM.DIST}(35, \mu, \sigma, 1)$$