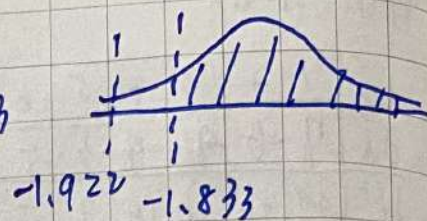


1. $H_0: m \geq 198$; $H_1: m < 198$ $\alpha = 0.05$

$$\frac{190 - 198}{\frac{13.16}{\sqrt{10}}} = -1.922$$

$$z_{0.05(9)} = -1.833$$

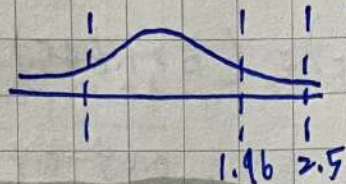
拒 $H_0 \Rightarrow$ 合格



2. $H_0: m = 420$ $H_1: m \neq 420$ $\alpha = 0.05$ $\frac{\alpha}{2} = 0.025$ $z_{0.025} = 1.96$

$$\frac{423 - 420}{\frac{12}{\sqrt{100}}} = 2.5$$

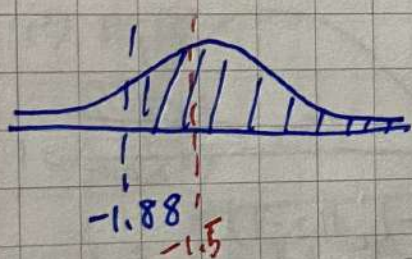
拒 $H_0 \Rightarrow$ 规格改变



3. $H_0: m \geq 70$; $H_1: m < 70$ $z_{0.03} = -1.88$

不拒绝 H_0

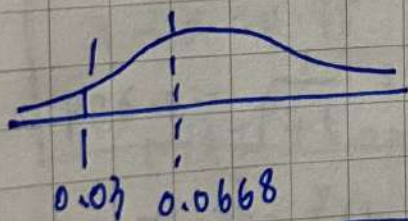
\Rightarrow 成绩没比去年



$$\frac{68.5 - 70}{\frac{6}{\sqrt{36}}} = -1.5$$

4. $P(Z < -1.5) = 0.0668 > 0.03$

不拒绝 H_0

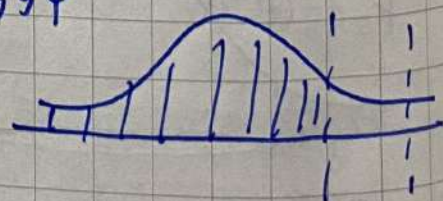


5. $H_0: m \leq 1.5$; $H_1: m > 1.5$

$$z_{0.05(4)} = 2.132$$

拒绝 $H_0 \Rightarrow$ 超標不合格

$$\frac{1.52 - 1.5}{\frac{0.019}{\sqrt{5}}} = 2.354$$



2.132 2.354