1. $\bar{x}=80$ $n=256$ $a=0.95$ $\sigma=16$

$$80 \pm 1.96 \cdot \frac{16}{16} = 80 \pm 1.96$$

2. $n=10$ $a=0.05$ $z=1.96$ $\sigma=0.65$ $\bar{x}=6.59$

$$6,59 \pm 1.96 \cdot \frac{0.65}{\sqrt{10}}$$

3. $H_0 = \mu = \mu_0$

$H_1 = \mu > \mu_0$

$$z_н = \frac{\bar{x} - \mu}{\sigma \sqrt{10} \, n} = \frac{12.5 - 11}{4/10} = \frac{5}{4} = 1.25$$

$p = 0.8944 + 1 = 0,1056$

$p > a \rightarrow H_0$ принимаем

4. $\mu = 200$ $n=10$ $a=0.01$ $\bar{x}=198.5$ $\sigma_н = 4.45$

$$t_н = \frac{198.5 - 200}{4.45/\sqrt{10}} = -\frac{1.5 \cdot 3.16}{4.45} = -1.065$$

$t_н = 3.25$

$H_0 = \mu = \mu_0$

$H_1 : \mu \ne \mu_0$

$|t_н| < t \Rightarrow H_0$ принимаем