(3)

$\mu = 100$ KB/s
$\sigma = 9$ KB/s
$n = 10$

880 760 840 864 888 824 832 808
896 872 (kb/s)

$$\bar{x} = \frac{\sum \left(\frac{x}{8}\right)}{n}$$

$$= 105.8$$

$$E = Z_{\alpha/2}\left(\frac{\sigma}{\sqrt{n}}\right)$$

$$= 1.96\left(\frac{9}{\sqrt{10}}\right)$$

$$= 5.578$$

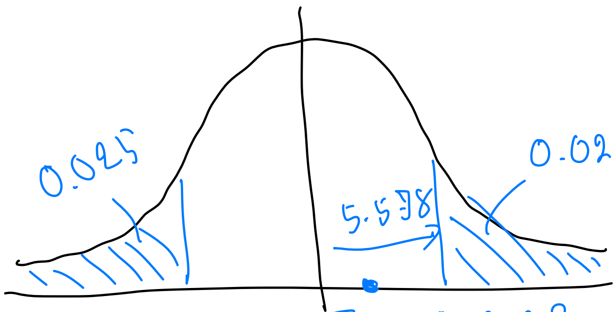
$H_0 : \mu = 100$ KB/s
$H_1 : \mu \neq 100$ KB/s

กำหนด CI = 95%

$$S = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(x-\bar{x})^2}$$

$$= \sqrt{\frac{1}{10-1}\left(\sum_{i=1}^{10}(x-105.8)^2\right)}$$

$$= 5.2662$$



$Z_{\text{จุด}} = 0.0003$

$$Z_{\text{ข้อมูล}} = \frac{\bar{X}-\mu}{\frac{S}{\sqrt{n}}}$$

$$= \frac{105.8-100}{\left(\frac{5.2662}{\sqrt{10}}\right)}$$

$$= \frac{5.8}{\left(\frac{5.2662}{3.1622}\right)}$$

$$= \frac{5.8}{1.6653}$$

$$= 3.4828$$

$= P(\bar{X} < \text{ช่วงล่าง}) + P(\bar{X} > \text{ช่วงบน})$

$$= \frac{105.5ฦ8 - 100}{5.5}$$