$R = \sigma_{66} \cdot x + 2\,\Omega$

$\Rightarrow P(\sigma_{66} \cdot x + 2\,\Omega < 2\,\Omega) + P(\sigma_{66} \cdot x + 2\,\Omega > 2\,\Omega + 4\,\Omega) \overset{!}{=} 0{,}1$

$\Rightarrow P(\sigma_{66} \cdot x < -4\,\Omega) + P(\sigma_{66} \cdot x > 4\,\Omega) \overset{!}{=} 0{,}1$

$\Rightarrow P\left(x < -\frac{4\,\Omega}{\sigma_{66}}\right) + P\left(x > \frac{4\,\Omega}{\sigma_{66}}\right) \overset{!}{=} 0{,}1$

< 0 $\quad > 0$

$\Rightarrow F\left(-\frac{4\,\Omega}{\sigma_{66}}\right) + 1 - F\left(\frac{4\,\Omega}{\sigma_{66}}\right) \overset{!}{=} 0{,}1$ $\quad P(x > \frac{4\,\Omega}{\sigma_{66}}) = 1 - P(x \leq \frac{4\,\Omega}{\sigma_{66}})$

$\Rightarrow 1 - \Phi\left(\frac{4\,\Omega}{\sigma_{66}}\right) + 1 - \Phi\left(\frac{4\,\Omega}{\sigma_{66}}\right) \overset{!}{=} 0{,}1$

$\Rightarrow 2 - 2\,\Phi\left(\frac{4\,\Omega}{\sigma_{66}}\right) \overset{!}{=} 0{,}1$

$\Rightarrow -2\,\Phi\left(\frac{4\,\Omega}{\sigma_{66}}\right) \overset{!}{=} -1{,}9$

$\Rightarrow \Phi\left(\frac{4\,\Omega}{\sigma_{66}}\right) \overset{!}{=} 0{,}95$

$\Rightarrow$

Tabelle $x = 1{,}645 \Rightarrow \Phi(x) = 0{,}95$

$\Rightarrow \frac{4\,\Omega}{\sigma_{66}} = 1{,}645$

$\Rightarrow \sigma_{66} = \frac{4\,\Omega}{1{,}645} = 2{,}432\,\Omega$

$$\underline{\sigma_{66} = 2{,}432\,\Omega}$$