Sample size calculation

The formula of two independent means were used to calculate the sample size, which numbered 22 eyes per group.

10 patients from each group were randomly selected to calculate the following formula.

\[
\begin{align*}
n_1 &= \frac{(z_{1-\frac{\alpha}{2}} + z_{1-\beta})^2 \left[ \sigma_1^2 + \frac{\sigma_2^2}{n} \right]}{\Delta^2} \\
r &= \frac{n_2}{n_1}, \quad \Delta = \mu_1 - \mu_2
\end{align*}
\]

mean in group 1(\(\mu_1\)) = 2.31 degree
SD in group 1 (sigma\(_1\)) = 1.07
mean in group 2(\(\mu_2\)) = 3.24 degree
SD in group 2(sigma\(_2\)) = 1.118
Alpha = 0.05
Beta = 0.2