Formula:

Confidence interval = $\bar{x} \pm Z_{\alpha}(s/\sqrt{n})$

$$n = \frac{\left[z_{\alpha}\sqrt{(1+1/m)\bar{p}(1-\bar{p})} + z_{\beta}\sqrt{p_0(1-p_0)/m + p_1(1-p_1)}\right]^2}{(p_0-p_1)^2}$$

$Z = \bar{x} - \mu / (\sigma/\sqrt{n})$

$n=(r+1/r)(P^*(1-P^*)(Z_{\alpha/2}+Z_{\beta})^2/(p_1-p_2)^2)$

$Z = (\acute{P}-P)/\sqrt{(pq/n)}$

$Z = (\bar{x}_1 - \bar{x}_z) - (\mu_1 - \mu_2)/\sqrt{((\sigma_1^2/n_1) + (\sigma_2^2/n_2))}$

$t = \bar{x} - \mu / (\sigma/\sqrt{n})$

$t = (\bar{x}_1 - \bar{x}_z) - (\mu_1 - \mu_2)/\sqrt{((Sp_1^2/n_1) + (Sp_2^2/n_2))}$

$n=Z_{\alpha/2}^2 p(1-p)/d^2$

$$\bar{p} = \frac{p_1 + mp_0}{m+1}$$

$n=Z_{\alpha/2}^2 SD^2/d^2$

$n=(r+1/r)(SD^2(Z_{\alpha/2}+Z_{\beta})^2/d^2)$

$$\mathbf{r} = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{\left[n\Sigma x^2 - (\Sigma x)^2\right]\left[n\Sigma y^2 - (\Sigma y)^2\right]}}$$