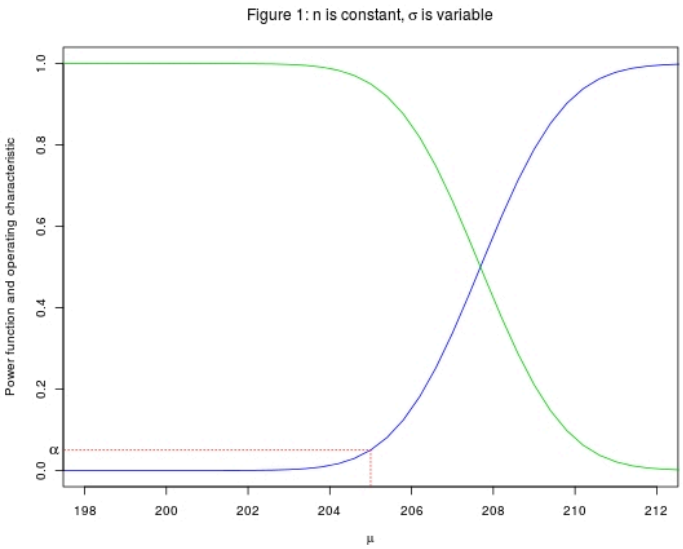
EoS - E-tutorial 06 - WiSe 2022/2023

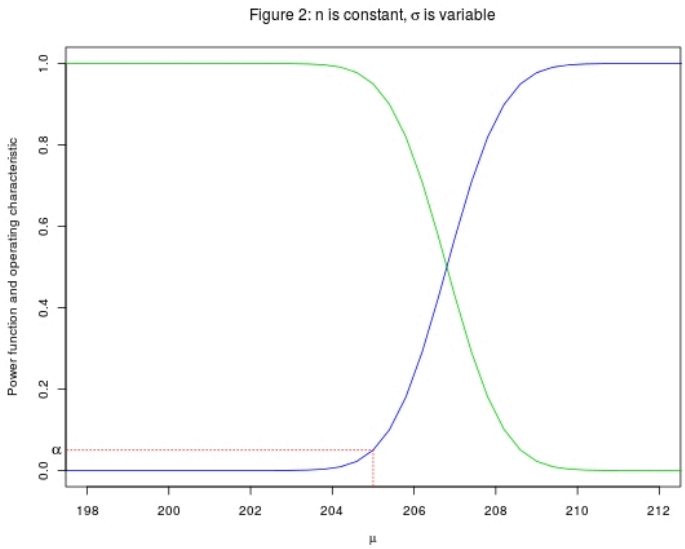
StatRef.I.1.1.00006 (20 Punkte)

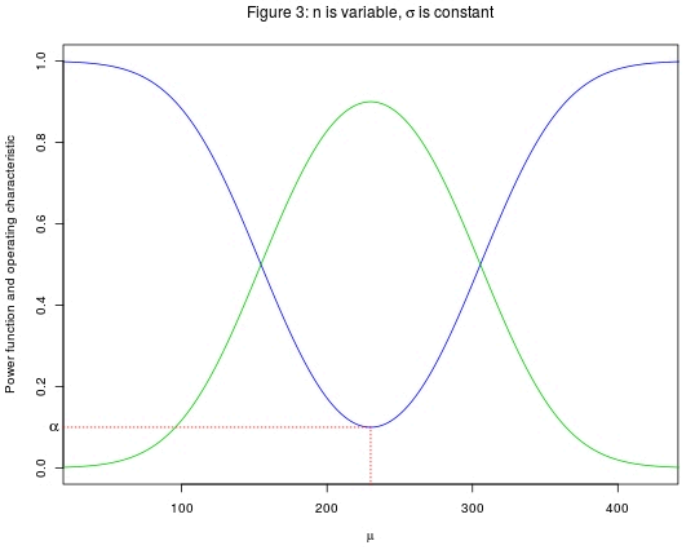
Sie haben die folgende Antwort gegeben:

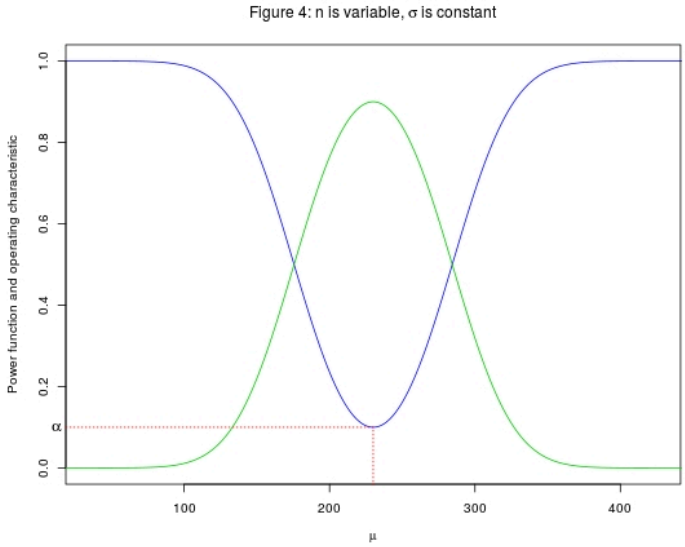
The following figures show the power function (blue line) and the operating characteristic (green line).

Please note: In figures 1 and 2 the sample size n remains constant, while in figures 3 and 4 the standard deviation σ is kept constant.









a) (5 Points) Which significance level has been used in the hypothesis test depicted in figure 2? **Please state an integer percentage value!** 5 ✅ %

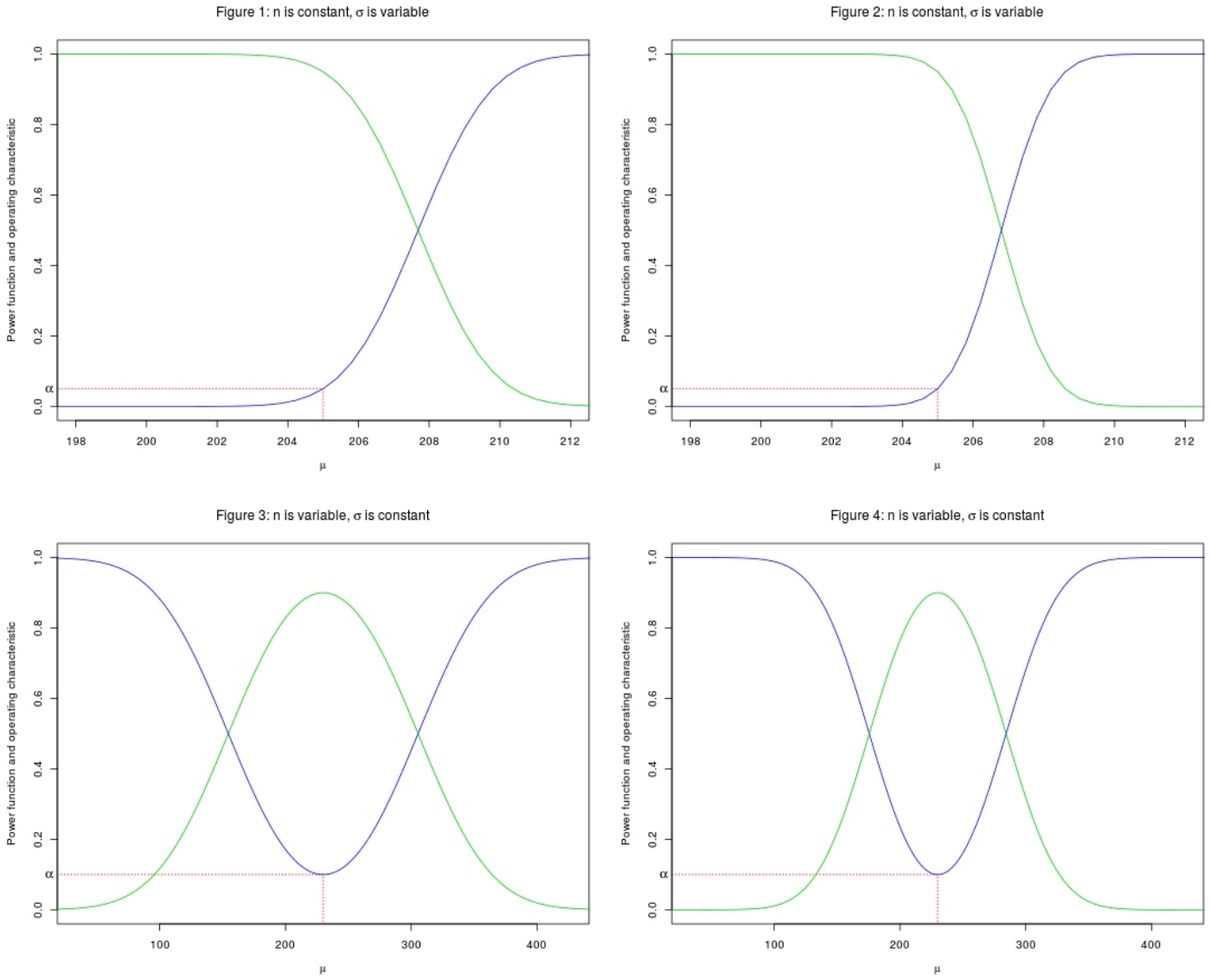
b) (5 Points) Which alternative hypothesis is subject of figure 3? $H_1 : \mu \neq \mu_0 = 230$ ✅

c) (10 Points) To which of the following statements do you agree?
Only one statement is correct! While the standard deviation σ in figure 1 is higher compared to the one in figure 2, the sample size n in figure 3 is larger than the one in figure 4. ❌

Die bestmögliche Lösung lautet:

The following figures show the power function (blue line) and the operating characteristic (green line).

Please note: In figures 1 and 2 the sample size n remains constant, while in figures 3 and 4 the standard deviation σ is kept constant.



a) (5 Points) Which significance level has been used in the hypothesis test depicted in figure 2? **Please state an integer percentage value!** 5 %

b) (5 Points) Which alternative hypothesis is subject of figure 3? $H_1 : \mu \neq \mu_0 = 230$

c) (10 Points) To which of the following statements do you agree?
Only one statement is correct! While the standard deviation σ in figure 1 is higher compared to the one in figure 2, the sample size n in figure 3 is smaller than the one in figure 4.

Sie haben 10 von 20 möglichen Punkten erreicht.