CA → in labs
↳ Through canvas

7/8 questions

↳ MCQ style (conceptual)

→ Question similar to exam
↳ Implement
↳ Heres a model
↓
Build a MC of this model

↳ Have access to internet & code.

2-3 code
4-5 theoretical (can the sample be obtained from whatever;)

Bootstrapping

Bias = EV − True value

Bootstrap from residuals

1) Fit original sample & get fitted values $\{\hat{Y}_i\}_{i=1}^{n}$

2) Generate B resamples of the residuals,

$$r_i = Y_i - \hat{Y}_i = Y_i - \hat{\theta}_0 X_i = \theta X_i + \varepsilon - \hat{\theta}_0 X_i$$
$$= \varepsilon + X_i(\theta - \hat{\theta}_0)$$

↳
$$\begin{cases} r_1^* = \{r_1^*, \dots, r_{N_1}^*\} \\ \vdots \\ r_B^* = \{r_1^*, \dots, r_{N_B}^*\} \end{cases}$$