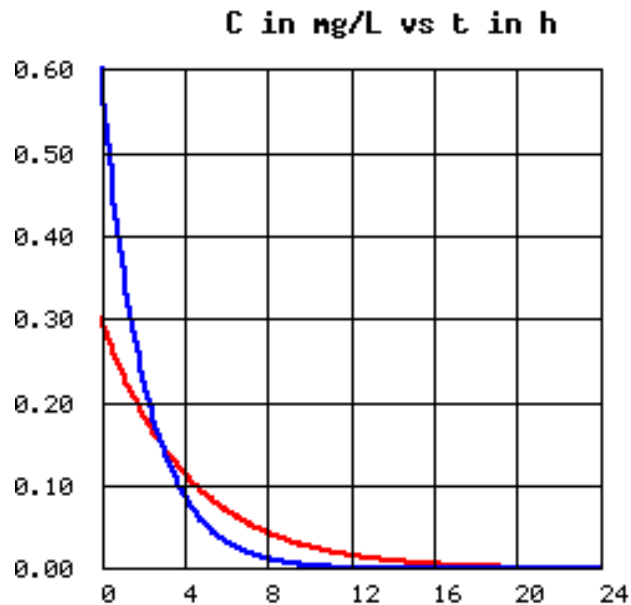


- 1) The same dose (500 mg) of drug A was administered to two distinct patients via IV-bolus. The following plasma-concentration-time profiles were obtained. The blue line is Subject 1 and the red line is subject 2. Answer the questions below.



True or false: [4 points]

- The clearance of subject 1 is higher to the clearance in subject 2. (T/F)
- The AUC_{0-t} of the subject 1 is higher to the AUC_{0-t} of subject 2. (T/F)
- The V_d of the subject 2 is higher to the V_d of subject 1. (T/F)
- The tissue binding in subject 1 is higher to the tissue binding in patient 2. (T/F)

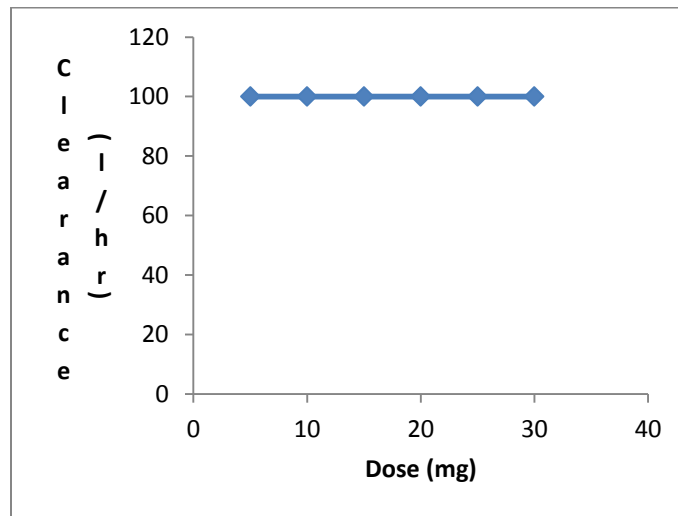
2) True or False [4 points]

- A change in clearance will always affect the volume of distribution (T/F)
- First order elimination and linear pharmacokinetics indicate that the drug follows a one compartmental body model. (T/F)
- When a parent drug is administered orally, the metabolite can be eliminated faster than the parent drug if the K_m (first order elimination rate constant of metabolite) is greater than k_e (first order elimination rate constant of the parent drug) (T/F)

iv) Absorption is always a first order process. (T/F)

3) Identify which plots indicate linear pharmacokinetics [2 points]

a)



b)

