GIVEN: BZ is a 92 yo male, Scr= 1.1 mg%, 5 feet 11 inches tall, 180 lbs, who has CHF and needs digoxin.

1. What is the ideal body weight for BZ?
   \[ I_{BMI} = 50 + (2.3 \times 17) = 75.3 \text{ kg} \]
   or 165.66 lbs

2. What is the predicted creatinine clearance for BZ?
   \[ C_{Cr} = \frac{(140-92)(75.3)}{(72)(1.1)} = 45.63 \text{ ml/min} \]

3. What oral loading dose of digoxin would you recommend to produce a Cp of 1.37 ug/L in BZ?
   \[ C_P = \frac{SFD}{Vd} \]
   \[ D = \frac{(C_P \times Vd)}{SxF} = \frac{(1.37 \times 427.6)}{(1.8)} = 732 \text{ mg} \]

4. What daily maintenance dose of digoxin will produce an average steady state plasma concentration of digoxin of 1.5 ug/L in BZ?
   \[ C_P = \frac{SFD}{Vd} \]
   \[ D = \frac{(C_P \times Vd)}{SxF} = \frac{(1.5 \times 94.92)}{(1.8)} = 177.9 \text{ mg} \]
   \[ Cl_{CHF} = \frac{(0.33 \times 75.3) + (0.9 \times 45.63)}{24.85} = 65.91 \text{ ml/min} \]
   \[ Cl_{L/D} = \frac{65.91 \times 1440}{1008} = 949.2 \text{ L/D} \]

5. If your maintenance dose is administered to BZ until steady state is achieved, how much digoxin will be eliminated from this patients body each day?
   At steady state, the amount in = amount out
   \[ \text{amount in} = (0.8 \times 177.9) = 142.4 \text{ mg} \]