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| ;Computer lab 5:1  METHOD RK4  STARTTIME = 0  STOPTIME = 100  DT = 0.02  CL = 10  V = 100  CSS = 0.1  ke = CL/V  t12 = logn(2)/ke  tinf = 5\*t12  Rinf= if (time <= tinf) then CSS\*CL else 0 ;Constant infusion for 5 half-lifes  d/dt(A1) = Rinf - ke\*A1 ;One-compartement, constant infusion  init(A1) = 0  C = A1/V |

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| ; Computer lab 5:2  METHOD RK4  STARTTIME = 0  STOPTIME = 500  DT = 0.02  {PK model}  CL = 10  V = 100  CSS = 0.1  ke = CL/V  t12 = logn(2)/ke  tinf = 5\*t12  Rinf = if(time <= tinf) then CSS\*CL else 0  d/dt(A1) = Rinf-ke\*A1 ;One-compartement, constant infusion  init(A1) = 0  CP = A1/V  {PD model}  kin = 0.1  kout = 0.1  sl = 500  eff = sl\*CP  ;Indirect effect model (III)  d/dt(E) = kin\*(1+eff)-kout\*E  init E = kin/kout |

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| ;Computer lab 5:3  METHOD RK4  STARTTIME = 0  STOPTIME = 500  DT = 0.02  {PK model}  CL = 10  V = 100  CSS = 0.1  ke = CL/V  t12 = logn(2)/ke  tinf = 5\*t12  Rinf = if(time <= tinf) then CSS\*CL else 0  d/dt(A1) = Rinf-ke\*A1 ;One-compartement, constant infusion  init(A1) = 0  CP = A1/V  {PD model}  kin = 0.1  kout = 0.1  sl = 500  eff = sl\*CP  ;Indirect effect model (III)  d/dt(E) = kin\*(1+eff)-kout\*E  init E = kin/kout  ;Pool model for tolerance  k0 = 0.1  d/dt(TP) = k0 - kin\*TP\*(1+eff)  d/dt(ETP)= kin\*TP\*(1+eff) - kout\*ETP  init TP = k0/kin  init ETP = TP\*kin/kout |

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| ;Computer lab 5:5  METHOD RK4  STARTTIME = 0  STOPTIME = 500  DT = 0.02  {PK model}  CL = 10  V = 100  CSS = 0.1  ke = CL/V  t12 = logn(2)/ke  tinf = 5\*t12  Rinf1 = if Time <= Tinf then Css\*CL else 0  Rinf2 = if Time > Tinf AND Time <= Tinf\*2  then  Css\*CL/16  else 0  Rinf3 = if Time > Tinf\*2 AND Time <= Tinf\*8 then Css\*CL/24 else 0  Rinf4 = if Time > Tinf\*8 AND Time <= Tinf\*16 then Css\*CL/100 else 0  Rinf = Rinf1+Rinf2+Rinf3+Rinf4  d/dt(A1) = Rinf-ke\*A1 ;One-compartement, constant infusion  init(A1) = 0  CP = A1/V  {PD model}  kin = 0.1  kout = 0.1  sl = 500  eff = sl\*CP  ;Indirect effect model (III)  d/dt(E) = kin\*(1+eff)-kout\*E  init E = kin/kout  ;Pool model for tolerance  k0 = 0.1  d/dt(ETP)= kin\*TP\*(1+eff) - kout\*ETP  d/dt(TP) = k0 - kin\*TP\*(1+eff)  init TP = k0/kin  init ETP = TP\*kin/kout |