1. Match the following differential equations to their slope fields.

   i) \( \frac{dy}{dx} = e^{x^2} \)  
   ii) \( \frac{dy}{dx} = e^{-2x^2} \)  
   iii) \( \frac{dy}{dx} = e^{-0.5x^2} \)  
   iv) \( \frac{dy}{dx} = e^{-0.5x} \cos x \)  
   v) \( \frac{dy}{dx} = \frac{1}{(1 + 0.5 \cos x)^2} \)  
   vi) \( \frac{dy}{dx} = -e^{-x^2} \)

2. Match the following differential equations to their slope fields. Create differential equations for the remaining slope fields. Note – there can be many answers.

   i) \( y' = 4 - y \)  
   ii) \( y' = \sin x \)  
   iii) \( y' = 1 + y \)