Calculus Exercises (11.5)

1. If \( R = \sqrt{u^2 + v^2} \), \( u = x + 2y \), \( v = 2x - y \), use the Chain Rule (連鎖法則) to find \( \frac{\partial R}{\partial x} \) at \( x = 1 \) and \( y = 2 \).
   (勿將 \( u, v \) 代入 \( R \) 後再微分)

2. Use implicit differentiation (隱微分) to find \( \frac{\partial z}{\partial x} \) and \( \frac{\partial z}{\partial y} \) if \( x^3y + y^2z^3 = xyz \).