Multi-Antenna Systems

Exercise 1:   Would a WiFi system be more likely to use multiple antennas for MIMO or SDMA? How about a cellular system?

Exercise 2: Consider a 2×2 channel where $\mathbf{H}$ is $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$ and $\mathbf{x}$ is $[1, -1]$. Find $\mathbf{y}$.

Exercise 3:   By (up to) what factor could a MIMO system with 3 transmit and 4 receive antennas increase throughput?