

① If  $(x, y, z) = (-3, -4, -5)$ ,  
then  $(r, \theta, z) = ?$

② If  $(r, \theta, z) = (7, -5\pi/4, 1)$ ,  
then  $(x, y, z) = ?$

③ Describe (geometrically) the following sets of points.

$$F = \{(x, y, z) : r + z = 5\}$$

$$G = \{(x, y, z) : 0 \leq \theta \leq \pi/2 \text{ \& } r \leq 5 \text{ \& } |z| \leq 4\}$$

$$H = \{(x, y, z) : z = r \cos \theta\}$$

$$K = \{(x, y, z) : z = r \text{ \& } \theta = \pi/3\}$$