Number of Paths: For each of the fields, mark two different points A and B. Can you identify paths where the vector line integral has the indicated value (greater than, equal to, or less than zero)? In the table, enter the number of paths you can find for each condition (max 2 paths).

Field	Number of paths with $\int_A^B \vec{F}_i \cdot \vec{dr}$		
	> 0	$= 0$	< 0
$\vec{F}_1$			
$\vec{F}_2$			

Match a Surface: One of the vector fields corresponds to (part of) your surface. Where does it match, and how do you know?

Extend to a New Surface: Could the other vector fields correspond to a surface? Explain why or why not.