Name:
I.D. Number:

Consider the following magnetic vector potential, which exists in free space:
$\vec{A}=6 x y z \vec{a}_{x}-3 y^{2} z \vec{a}_{y} \quad[W b / m]$
Calculate the resulting magnetic flux $\psi_{m}$ through the rectangular area (S) shown below. The area lies entirely in the $y-z$ plane.


