

1. Let D be the unit disk centered about the origin in xy -space. Let B be the bottom half of D . Identify the sign of $\int_B 5y \, dA$. Provide brief justification for your choice.
- ☐ positive ☐ zero ☐ negative

2. Reverse the order of integration for $\int_0^1 \int_x^1 \sin(y^2) \, dy \, dx$. Do **not** evaluate the integral.

