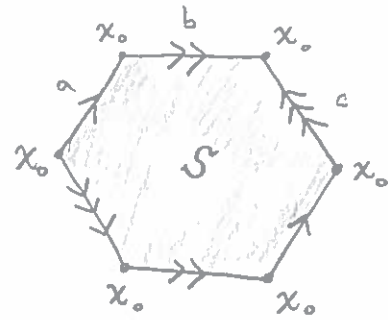


Topology
Quiz 8

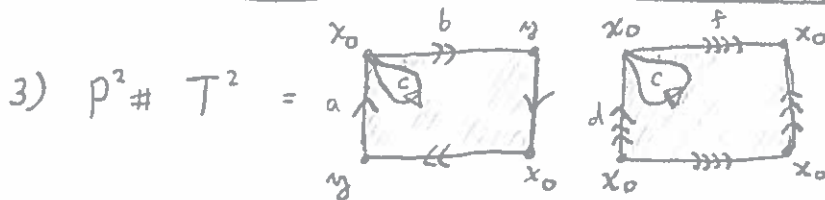
Name: _____

Consider the "mystery surface":



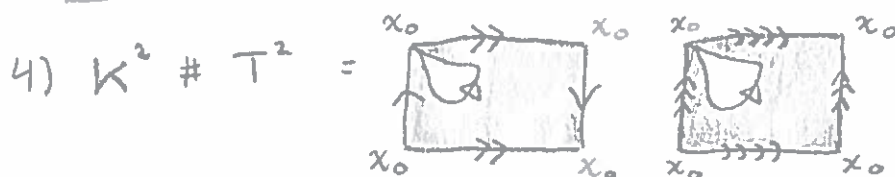
1) Find $\chi(S)$.

2) Find a presentation for $\pi_1(S)$.



a) Find $\chi(P^2 \# T^2)$.

b) Find a presentation for $\pi_1(P^2 \# T^2)$



Find $\chi(K^2 \# T^2)$.

