1. Find the average value of the function $f(x, y) = \cos x \cos y$ along the line segment from $(0, 0)$ to $(\pi, \pi)$. 
2. Let \( \vec{F} = (y, x) \). Compute the line integral \( \int_C \vec{F} \cdot d\vec{x} \), where the curve \( C \) is the ellipse \( \frac{x^2}{4} + \frac{y^2}{9} = 1 \), oriented counterclockwise.

3. **Bonus:** Pick one of the following and explain why you made your choice:
   
   (a) Flim
   
   (b) Rhubarb
   
   (c) Fingerbib
   
   (d) Jynweythek