Friday, February 15

Clicker Questions

Clicker Question 1

A massive undertaking

A lamina with density $\rho = 4$ is in the shape of the region between the graphs of $y = 1/x$ and $y = (3 - x)/2$. Find the mass of the lamina.

A. $3 - 4\ln 2$

B. $3/4 - \ln 2$

C. $\ln 2 - 3/4$

D. $4\ln 2 - 3$

E. none of the above

Clicker Question 2

A differential equation

Find all functions $y = y(\theta)$ that satisfy the equation

$$\frac{y'(\theta)}{\cos \theta} = \tan \theta + 1.$$

A. $y(\theta) = \ln |\sin \theta| + C$

B. $y(\theta) = \ln |\sec \theta + \tan \theta| + C$

C. $y(\theta) = \sin \theta - \cos \theta + C$

D. $y(\theta) = \sin \theta + \cos \theta + C$

E. $y(\theta) = \ln |\sin \theta| + \theta + C$