

Name: _____

7. Find $\int \frac{1}{\sqrt{9-y^2}} dy$. (Recall $\int \sec \theta d\theta = \ln |\sec \theta + \tan \theta| + C$.)

A. $\ln \left| \sqrt{1 + \frac{1}{9}y^2} + \frac{y}{3} \right| + C$.

B. $\sin^{-1}\left(\frac{y}{9}\right) + C$

C. $\ln(\sqrt{9 + \frac{1}{9}y^2}) + C$

D. None of these.

8. Find $\int \frac{1}{x\sqrt{4x^2-1}} dy$ where $x > \frac{1}{2}$.

A. $\tan^{-1}(4x^2 - 1) + \ln |x| + C$

B. $\sec^{-1}(2x) + C$

C. $\ln |x + \sqrt{4x^2 - 1}| + C$

D. None of these.