Review Quiz A

/ 10 pts.

Name: Key

Per.: ____

① $\frac{d}{dx}[a^x] =$ $a^x \ln a$

② $\frac{d}{dx}[\cot x] =$ $-\csc^2 x$

③ $\frac{d}{dx}[\ln x] =$ $\frac{1}{x}$

④ $\frac{d}{dx}[\arcsin x] =$ $\frac{1}{\sqrt{1-x^2}}$

⑤ $\frac{d}{dx}[\cos x] =$ $-\sin x$

⑥ $\int \tan x \, dx =$ $\ln|\sec x| + C$ or $-\ln|\cos x| + C$

⑦ $\int dx =$ $x + C$

⑧ $\int e^x \, dx =$ $e^x + C$

⑨ $\int \frac{1}{x^2+4} \, dx =$ $\frac{1}{2} \arctan\frac{x}{2} + C$

⑩ $\int \frac{1}{x} \, dx =$ $\ln|x| + C$

Review Quiz 3

Name: Key

Per.: ____

10 pts.

① $\frac{d}{dx}[\log_a x] =$ $\frac{1}{x \ln a}$

② $\frac{d}{dx}[\csc x] =$ $-\csc x \cot x$

③ $\frac{d}{dx}[e^x] =$ e^x

④ $\frac{d}{dx}[\text{arcsec } x] =$ $\frac{1}{x\sqrt{x^2-1}}$

⑤ $\frac{d}{dx}[\sin x] =$ $\cos x$

⑥ $\int \cot x \, dx =$ $-\ln|\csc x| + C$ or $\ln|\sin x| + C$

⑦ $\int x \, dx =$ $\frac{1}{2}x^2 + C$

⑧ $\int \pi \, dx =$ $\pi x + C$

⑨ $\int \frac{1}{\sqrt{4-x^2}} \, dx =$ $\arcsin\frac{x}{2} + C$

⑩ $\int a^x \, dx =$ $\frac{a^x}{\ln a} + C$