

# Derivatives Review

Name: \_\_\_\_\_  
Per.: \_\_\_\_\_

$$\textcircled{1} \frac{d}{dx}[\pi] =$$

$$\textcircled{2} \frac{d}{dx}[f(x) \pm g(x)] =$$

$$\textcircled{3} \frac{d}{dx}[f(x)g(x)] =$$

$$\textcircled{4} \frac{d}{dx}\left[\frac{f(x)}{g(x)}\right] =$$

$$\textcircled{5} \frac{d}{dx}[x^n] =$$

$$\textcircled{6} \frac{d}{dx}[f(g(x))] =$$

$$\textcircled{7} \frac{d}{dx}[\ln x] =$$

$$\textcircled{8} \frac{d}{dx}[e^x] =$$

$$\textcircled{9} \frac{d}{dx}[\log_a x] =$$

$$\textcircled{10} \frac{d}{dx}[a^x] =$$

$$\textcircled{11} \frac{d}{dx}[\sin x] =$$

$$\textcircled{12} \frac{d}{dx}[\cos x] =$$

$$\textcircled{13} \frac{d}{dx}[\tan x] =$$

$$\textcircled{14} \frac{d}{dx}[\cot x] =$$

$$\textcircled{15} \frac{d}{dx}[\sec x] =$$

$$\textcircled{16} \frac{d}{dx}[\csc x] =$$

$$\textcircled{17} \frac{d}{dx}[\arcsin x] =$$

$$\textcircled{18} \frac{d}{dx}[\arccos x] =$$

$$\textcircled{19} \frac{d}{dx}[\arctan x] =$$

$$\textcircled{20} \frac{d}{dx}[\text{arccot } x] =$$

$$\textcircled{21} \frac{d}{dx}[\text{arcsec } x] =$$

$$\textcircled{22} \frac{d}{dx}[\text{arccsc } x] =$$

# Integrals Review

Name: \_\_\_\_\_  
Per.: \_\_\_\_\_

$$\textcircled{1} \int \pi dx =$$

$$\textcircled{2} \int x dx =$$

$$\textcircled{3} \int dx =$$

$$\textcircled{4} \int x^n dx =$$

$$\textcircled{5} \int f(x) + g(x) dx =$$

$$\textcircled{6} \int a f(x) dx =$$

$$\textcircled{7} \int \frac{1}{x} dx =$$

$$\textcircled{8} \int e^x dx =$$

$$\textcircled{9} \int a^x dx =$$

$$\textcircled{10} \int \sin x dx =$$

$$\textcircled{11} \int \cos x dx =$$

$$\textcircled{12} \int \tan x dx =$$

$$\textcircled{13} \int \cot x dx =$$

$$\textcircled{14} \int \sec x dx =$$

$$\textcircled{15} \int \csc x dx =$$

$$\textcircled{16} \int \underline{\hspace{2cm}} dx = \tan x + C$$

$$\textcircled{17} \int \underline{\hspace{2cm}} dx = -\cot x + C$$

$$\textcircled{18} \int \underline{\hspace{2cm}} dx = \sec x + C$$

$$\textcircled{19} \int \underline{\hspace{2cm}} dx = -\csc x + C$$

$$\textcircled{20} \int \frac{1}{\sqrt{a^2 - x^2}} dx =$$

$$\textcircled{21} \int \frac{1}{a^2 + x^2} dx =$$

$$\textcircled{22} \int \frac{1}{x\sqrt{x^2 - a^2}} dx =$$