Derivatives and Integrals Drill

Name: _____

Fall 2026

MTH 146

Find the derivative or antiderivative as indicated. Put your answers on the lines provided.

(a) $\int \cos x \ dx =$_____

(b) $\int x^{-4} \ dx =$_____

(c) $\frac{d}{dx}(e^x) =$_____

(d) $\frac{d}{dx}(\text{arcsec} x) =$_____

(e) $\int \sec^2 x \ dx =$_____

(f) $\int \csc x \cot x \ dx =$_____

(g) $\frac{d}{dx}(x^3) =$_____

(h) $\frac{d}{dx}(\cot x) =$_____

(i) $\int \frac{1}{1+x^2} \ dx =$_____

(j) $\int \frac{1}{x} \ dx =$_____

(k) $\frac{d}{dx}(\sec x) =$_____

(l) $\frac{d}{dx}(2^x) =$_____

(m) $\int 3 \ dx =$_____

(n) $\int \frac{1}{\sqrt{1-x^2}} \ dx =$_____