

(1) Calculate the derivatives of

(a)

$$f(x) = \arctan e^x$$

(b)

$$g(x) = x \arcsin x$$

(c)

$$y = \frac{\operatorname{arccsc} x}{x^2 + 1}$$

(d)

$$y = \ln \arccos x$$

(e)

$$h(x) = \tan(\operatorname{arcsec}(3x))$$

(f)

$$y = \operatorname{arccot}(\ln \cos x)$$