

APCalculus AB D05 EASY Practice  
No Calculator

**In #1 - #6, give the derivatives:**

1.  $D_x(\arcsin(x))$

2.  $D_x(\arccos(x))$

3.  $D_x(\arctan(x))$

4.  $D_x\left(\arctan\left(\frac{1}{x}\right)\right)$

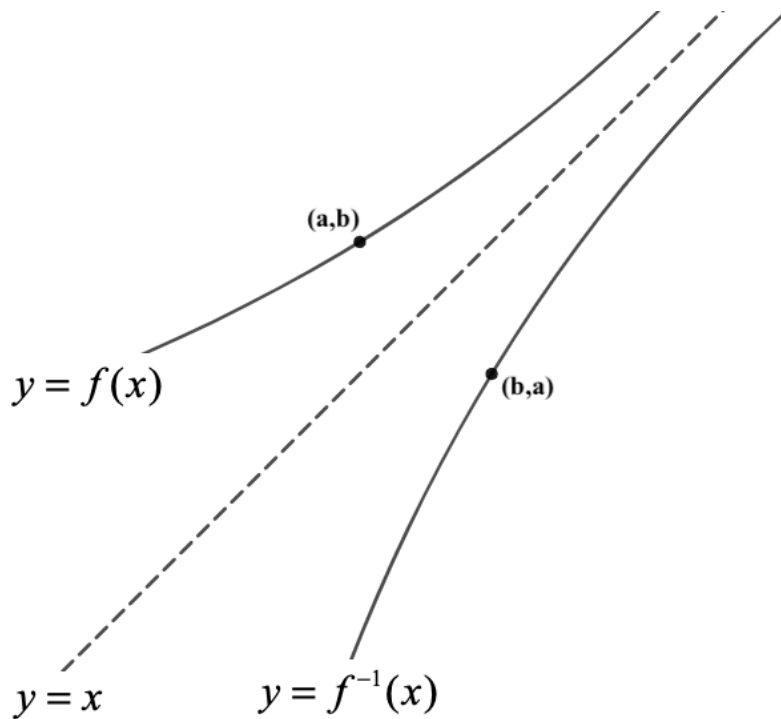
5.  $D_x(\log_3(x))$

6.  $D_x(\log_3(5^x))$

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(over)

7. For the following situation, give an expression for  $(f^{-1})'(b)$ , “the derivative of the inverse function of  $f$  at  $x = b$ ,” in terms of the derivative of function  $f$ .



8. Find the values  $c$  and  $m$  in the following expressions:

$$g\left(\frac{\pi}{4}\right) = 1 \quad g'\left(\frac{\pi}{4}\right) = 2 \quad (g^{-1})(1) = c \quad (g^{-1})'(1) = m$$

9. Find the slope of the tangent line to the curve  $x^2 + y^3 = 2$  at  $(-1, 1)$ .

