Name: _____ Mark: _____

Mini-math Div 3/4: Monday, January 25, 2021 (12 minutes)

1. Find the derivative of y with respect to x in each of the following.

   (a) (2 points) $y = \arcsin x^3$

   (b) (2 points) $y = x \arctan x$

   (c) (2 points) $y = \arccos(\cos x)$ on $[0, \pi]$

   (d) (2 points) $y - \arctan y = x$

2. Find the derivative of y with respect to x in each of the following.

(a) (2 points) $y = e^{\cos^2 x}$

(b) (2 points) $y = \dfrac{e^{\pi}}{1 - e^{\pi}}$

(c) (2 points) $y = \sqrt{e^{x^2} + 1}$

(d) (2 points) $e^{xy} = x + y$