

MATH 141: QUIZ 6 SECTIONS 3.8 AND 3.9

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Name: _____

No phone or calculator. You must show all work to receive full credit. Be sure to make reasonable simplifications.

1. **(4 points)** Use logarithmic differentiation to find $\frac{dy}{dx}$:

$$y = x^{\sin x}$$

2. **(4 points)** Differentiate the following function:

$$f(x) = \arctan(3x^5)$$

3. **(2 points)** What are you looking forward to over spring break?