

PRINT your name _____

Quiz for March 24, 2009 – 9:30 section

Remove everything from your desk except this page and a pencil or pen.

Circle your answer. Show your work.

The quiz is worth 5 points.

Find $\lim_{x \rightarrow 0} \frac{\arcsin 2x}{x}$.

Answer: The top and the bottom both go to zero. We may use L'Hôpital's rule to see that

$$\lim_{x \rightarrow 0} \frac{\arcsin 2x}{x} = \lim_{x \rightarrow 0} \frac{\frac{2}{\sqrt{1-4x^2}}}{1} = \boxed{2}.$$