PRINT Your Name:____________________

**Quiz 1 — August 29, 2012 – Section 9 – 10:10 – 11:00**

**Remove everything from your desk except this page and a pencil or pen.**
The solution will be posted soon after the quiz is given.

$\boxed{\text{Circle}}$ your answer. **Show your work. Check your answer.**
The quiz is worth 5 points.

Find $\int \frac{dx}{\sqrt{1-x^2}\arcsin x}$.

**Answer:** Let $u = \arcsin x$. Then $du = \frac{dx}{\sqrt{1-x^2}}$. The integral is equal to

$$\int \frac{1}{u} du = \ln|u| + C = \boxed{\ln|\arcsin x| + C}.$$

**Check:** The derivative of the proposed answer is

$$\frac{1}{\sqrt{1-x^2}\arcsin x}. \checkmark$$