INVERSE TRIG FUNCTIONS

BLAKE FARMAN

Lafayette College

Name: _____

Compute the derivative of the given function.

1. $f(x) = \arctan(x^2)$

2. $f(x) = \arctan(x)^2$

3. $f(x) = \arcsin(2x + 1)$

4. $f(x) = \arccos(\sqrt{x})$

5. $f(x) = x \arcsin(x) + \sqrt{1 - x^2}$

Compute the following integrals

6. $\displaystyle\int \frac{1}{a^2 + x^2}\,\mathrm{d}x$

7. $\displaystyle\int \frac{1}{\sqrt{a^2 - x^2}}\,\mathrm{d}x$