

# Math 229 Quiz 1

Date: February 8, 2017

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You may use only Julia during this exam. No calculators, etc.

NAME: \_\_\_\_\_

Key

## Problem 1.

Convert the following Julia expressions to standard mathematical expressions. Use parentheses to clearly indicate the order of operations:

a.  $\exp(x+y)/x-z$

$$\frac{e^{x+y}}{x} - z$$

b.  $x^y z$

$$x^y z$$

c.  $\cos(x)^{3/7} \cdot \text{sqrt}(x)$

$$\frac{\cos^3(x)}{7} \cdot \sqrt{x}$$

d.  $x-y/(z+x) \cdot (y-x)$

$$x - \frac{y}{z+x} (y-x)$$

e.  $5.7e-32$

$$5.7 \cdot 10^{-32}$$

Problem 2.

Convert each of the following expressions to its Julia equivalent:

a.  $\cos^{-1}(3x/2\pi)$ .

$$a \cos(3x/2\pi)$$

$$a \cos((3 * x) / (2 * \pi))$$

b.  $7x^{y-5z^{30}}$

$$7x \wedge (y - 5z \wedge 30)$$

c.  $\frac{x}{\frac{y}{z} - 2}$

$$x / (y/z - 2)$$

d.  $\frac{|x|}{\arcsin^2 x} + \frac{3e^{\sqrt{x}}}{\pi}$

$$abs(x) / asin(x) \wedge 2 + 3e \wedge sqrt(x) / \pi$$

e.  $\frac{5x^7}{\sqrt[3]{x+6}}$

$$5x \wedge 7 / cbvt(x+6)$$

$$5x \wedge 7 / (x+6) \wedge (1/3)$$