

## Atmospheric Sciences 101 Math Assessment

This is only for helping me design the homeworks/quizzes. NO CALCULATORS. No name needed.

Your High School \_\_\_\_\_ City and State of your HS \_\_\_\_\_

### 1. Arithmetic

(a)  $\frac{1}{0.1} =$

(b)  $2^3 =$

(c)  $64^{1/2} =$

(d)  $2^{-2} =$

(e)  $\frac{25 \cdot 10^3}{5 \cdot 10^{-5}} =$

(f)  $231/7 =$  (no calculator, to the tenths place)

### 2. Express in scientific notation

(a) .00012

(b) 300,000

### 3. Geometry and Trigonometry

(a) The formula for the area of a circle is:

(b) Using the diagram at the right,  $\cos \alpha =$

$a/b$ ,  $b/a$ ,  $a/c$ ,  $d/a$ ,  $b/c$ ,  $c/b$  (circle the right answer)

### 4. Algebra

(a)  $PV=nRT$ ; solve for T.

(b)  $y= x/(1-x)$ ; solve for x

(c)  $a/x = b/c$ ; solve for x in terms of a, b, c

