## Atmospheric Sciences 101 Math Assessment

This is only for helping me design the homeworks/quizzes. NO CALCULATORS. No name needed.
Your High School $\qquad$ City and State of your HS $\qquad$

## 1. Arithmetic

(a) $\frac{1}{0.1}=$
(b) $2^{3}=$
(c) $64^{1 / 2}=$
(d) $2^{-2}=$
(e) $\frac{25 * 10^{3}}{5 * 10^{-5}}=$
(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, $\cos \alpha=$ $\mathrm{a} / \mathrm{b}, \mathrm{b} / \mathrm{a}, \mathrm{a} / \mathrm{c}, \mathrm{d} / \mathrm{a} . \mathrm{b} / \mathrm{c}, \mathrm{c} / \mathrm{b}$ (circle the right answer)
4. Algebra

(a) $P V=n R T$; solve for $T$.
(b) $y=x /(1-x)$; solve for $x$
(c) $\mathrm{a} / \mathrm{x}=\mathrm{b} / \mathrm{c}$; solve for x in terms of $\mathrm{a}, \mathrm{b}, \mathrm{c}$

