## 2009 PreAP Linear Motion 1

1. Complete the Regular Physics homework: Physics Basics 1.

There is a table of metric prefixes on the website.
Here's a big hint: since the prefixes are all related to meters (the base unit), first convert to the base, then to the secondary unit.
2. Example: How many centimeters are in 85 Gigameters?
A. First convert 85 gigameters to meters:
B. Now convert meters to centimeters from part A.
$\mathrm{m} / \mathrm{s}$ means meters per second. Mph means miles per hour.

> | $3.3 \mathrm{ft}=1 \mathrm{~m}$ | $5280 \mathrm{ft}=1 \mathrm{mi}$ |
| :--- | :--- |
| $12 \mathrm{in}=1 \mathrm{ft}$ | $2.54 \mathrm{~cm}=1 \mathrm{in}$. |

I assume you know about seconds, mins, etc Any other time we mean miles we will use mi.
3. A car is moving $30 \mathrm{~m} / \mathrm{s}$. How fast is that in mph?

That's enough for today.

