Math 2601 C2
Homework 1

Directions: Below please see the list of homework problems for this week. On Friday I will collect your solutions and select two or three of these problems to grade. I will collect the problems at 2:05 pm Friday January 12, 2001. Please be sure to staple your homework and to write as neatly as possible. If I can't read it, I can't give you any credit.

Sec 12.1: 29,31,39
Sec 12.3: 17,25,27,35,37,43
Sec 12.4: 11,17,29,39,43
Sec 12.5: 23,33,37
Sec 12.6: 3,7,9,15,21,25,27
Sec 12.7: 3,5,7,15,21,23,29,37 (You will be responsible for this section provided we get this far by the end of Wednesday)

We saw in class that the dot product is both commutative $\left(\vec{\mathbf{x}}\cdot\vec{\mathbf{y}}=\vec{\mathbf{y}}\cdot\vec{\mathbf{x}}\right)$ and distributive $\left(\left(\vec{\mathbf{x}}+\vec{\mathbf{y}}\right)\cdot\vec{\mathbf{z}}=\vec{\mathbf{x}}\cdot\vec{\mathbf{z}}+\vec{\mathbf{y}}\cdot\vec{\mathbf{z}}\right.$ and $\left.\vec{\mathbf{x}}\cdot\left(\vec{\mathbf{y}}+\vec{\mathbf{z}}\right)=\vec{\mathbf{x}}\cdot\vec{\mathbf{y}}+\vec{\mathbf{x}}\cdot\vec{\mathbf{z}}\right)$. Is it true that the dot product is also associative? I.e., is it true that $\vec{\mathbf{x}}\cdot\left(\vec{\mathbf{y}}\cdot\vec{\mathbf{z}}\right)=\left(\vec{\mathbf{x}}\cdot\vec{\mathbf{y}}\right)\cdot\vec{\mathbf{z}}$? Why or why not?