

Name: _____ ID: _____

1. Describe in words the region of three-dimensional space represented by the equation $y^2 = 9$.
Be specific.

2. Let $\mathbf{a} = 8\mathbf{i} - \mathbf{j} + 4\mathbf{k}$ and $\mathbf{b} = 4\mathbf{j} + 2\mathbf{k}$. Find the angle between \mathbf{a} and \mathbf{b} . Is the angle acute or obtuse?

You'll find that you won't be able to completely simplify the expression for the angle, but get as far as you can without a calculator.