

**THE MECHANICAL UNIVERSE**  
**Video 36 - Vector Fields and Hydrodynamics**

**Name:** \_\_\_\_\_  
**Class:** \_\_\_\_\_

1. What about the force of gravity embarrassed Isaac Newton?
2. Hydrodynamics involves the flow of \_\_\_\_\_?
3. The creators of this video attempt to connect the link between humans and water to what popular theory?
4. Is it possible to see electric and magnetic fields?
5. All vector fields obey equations describing their \_\_\_\_\_?
6. What does the word "flux" mean in Latin?
7. In water, how does the flux into a closed surface compare to the flux out?
8. What is vortex flow?
9. How do magnetic and electric fields differ?