Readings and Discussion Questions

Thursday August 24

Read Chapters: $1, 2.1, 2.1.1, 2.1.2$

Discussion Questions

1. Why do we choose to require b to be a constant vector (independent of x and t)?
2. In what way are we treating the space and time variables differently in the transport equation?
3. In what ways are we replacing the transport equation by an ODE?
4. What is being "transported" in the solution (3) on pg.18? Is the condition $t \geq 0$ really needed?
5. Can you immediately check that the formula (5) solves (4)?