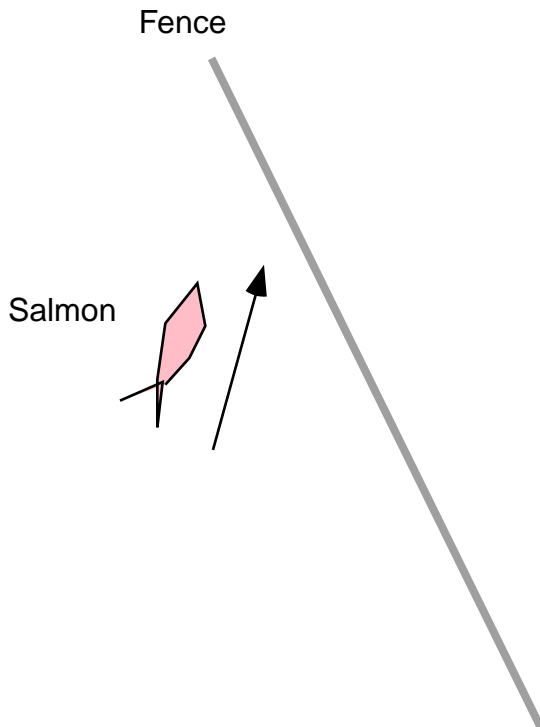


**Geophysics 150: Home set due Nov. 8, 2000**

3. There is a gross excess of salmon in northern California streams this year. Assume that salmon are passing through a fence. There are 5 salmon per square meter in the stream and the salmon are moving N20E. The fence is aligned N30W. Find the rate that salmon pass through a meter length of fence using vectors. The velocity of the salmon is 2 m/s.



4. Sail boats and ice boats can tack somewhat into the wind. The sail resolves the wind into vectors and the keel of the boat resolves the force on the sail. Sketch how sail should be aligned for boat to go forward and sketch vectors. Express force driving boat forward with dot products.

