

**Problem solving using vectors 15.2**

Situation 1: Suppose a plane is traveling east at 100km/hr with a tailwind of 25km/hr. Model the situation with vectors and find the resulting speed of the plane.

Situation 2: Suppose a plane is traveling south at 100 km/hr and meets with a westward side wind that is 25 km/hr. Model the situation with vectors and find the resulting speed of the plane.

Situation 3: Suppose a river boat is heading east across a river at a speed of 4 m/s. The current of the river is moving at 3 m/s north. Model the situation using vectors and then find the resulting speed of the river boat.