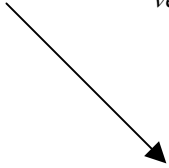


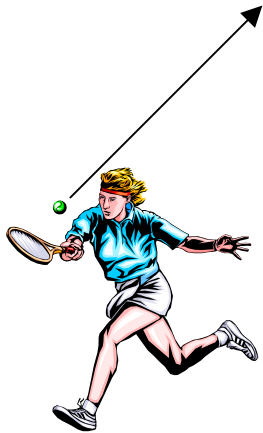
VECTOR COMPONENTS WORKSHEET



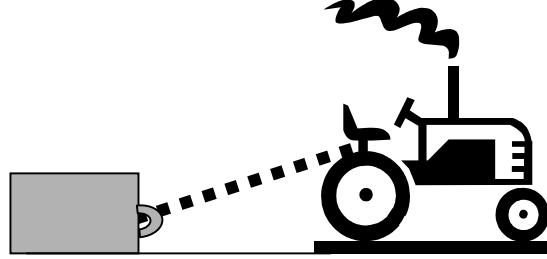
1. A plane is heading on a vector of 30° in $Q IV$ at a speed of 450 mph. Calculate both the easterly component of that velocity and the southerly component of that velocity.



4. A hockey player slaps a puck at an at a speed of 100 mph m/s at an angle of 5° . What is the component of velocity towards the overhead marquee?

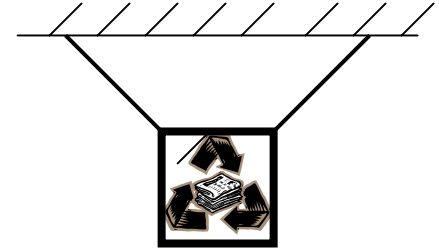


3. A tennis player hits a tennis ball at an angle of 40° at a speed of 5 m/s. What is the component of velocity down court.



2. A tractor is towing a sled at an angle of 35° with a chain tension of 5 tons. Calculate the force of the chain that is tending to pull the sled in an upward direction.

5. (Optional for Sections A,B & F). A sign weighing 100 N hangs at symmetrical angles of 45° . What is tension component of each cable in the vertical direction.



6. (Optional for Sections A,B & F). After calculation of the vertical tension component continue with your knowledge of RT trig to solve for the total tension in each cable.