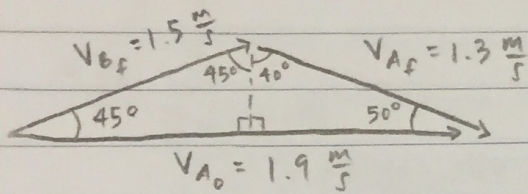
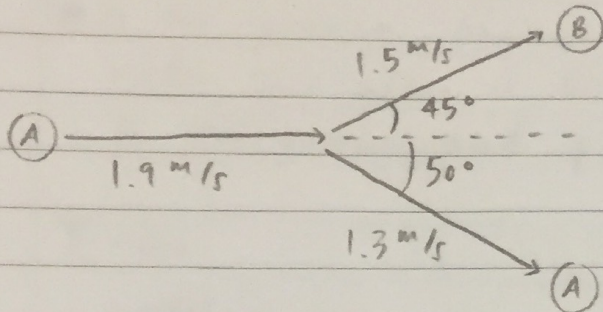


## Project 2 Corrections

- Show that the final momentum vectors add to the initial momentum vector



$$\cos 45^\circ = \frac{x}{1.5 \text{ m/s}}$$

$$x = 1.06 \text{ m/s}$$

$$x + y = 1.9 \text{ m/s}$$

$$1.06 \text{ m/s} + 0.84 \text{ m/s} = 1.9 \text{ m/s} \quad \checkmark$$

$$\cos 50^\circ = \frac{y}{1.3 \text{ m/s}}$$

$$y = 0.84 \text{ m/s}$$

- take into consideration frictional force

Using Tracker, we figured out that the actual speeds of the balls are a bit smaller due to frictional force from the pool table.  $v_{A_f} = 1.2 \text{ m/s}$  and  $v_{B_f} = 1.4 \text{ m/s}$ . Our calculated speeds are greater because we didn't take into account the friction surface of the pool table.