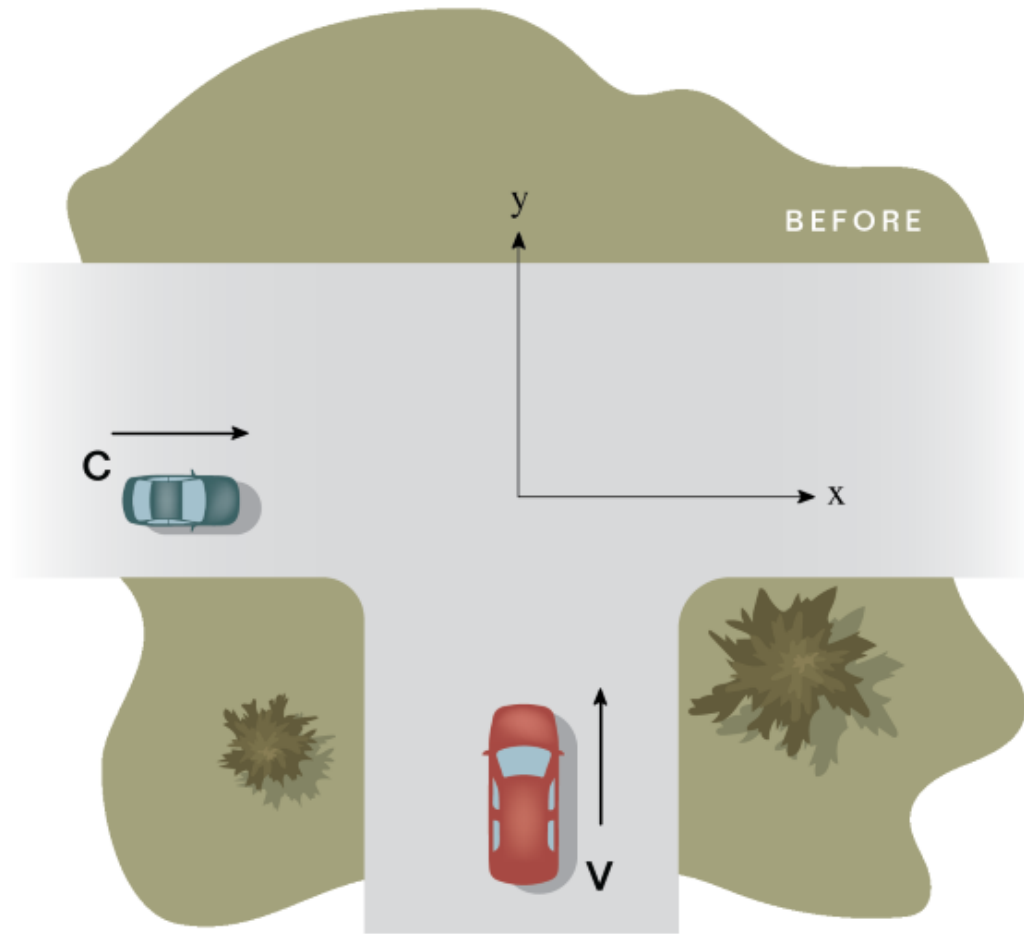


21-P-KM-GD-013

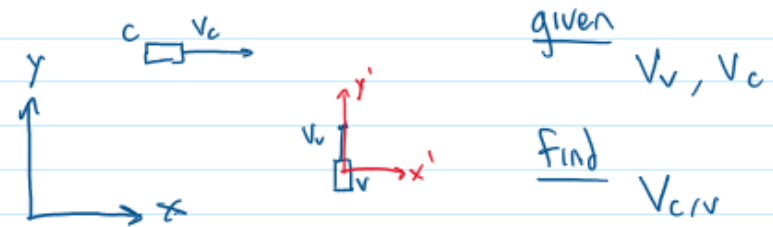


You have recently bought a new-to-you red station wagon. It is your first vehicle so you are excited to take it out for a spin.

While approaching a T-intersection, you notice a blue-ish grey sedan speeding toward the intersection.

Your speedometer reads V_v , while you notice a speed warning sign flashing at the sedan, reading V_c .

What is the magnitude of the speed of the sedan relative to your station wagon?



$$V_c = V_v + V_{c/v}$$

\uparrow \uparrow
 $+\hat{i}$ $+\hat{j}$

$$V_{c/v} = V_c \hat{i} - V_v \hat{j}$$

$$\underline{|V_{c/v}| = \sqrt{V_c^2 + V_v^2}}$$