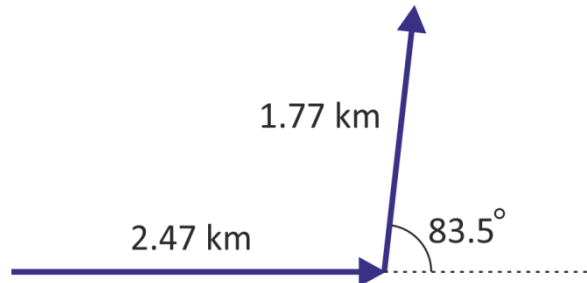


## Answer on Question #47777, Physics, Mechanics | Kinematics | Dynamics

A car travels 2.47 km in the x-direction, then turns left  $83.5^\circ$  to the original direction and travels an additional distance of 1.77 km.

Calculate the x component of the car's net displacement.

**Solution:**



The x component of the car's net displacement is

$$d_x = 2.47 + 1.77 \cos 83.5^\circ = 2.67 \text{ km}$$

**Answer:**  $d_x = 2.67 \text{ km}$