

89. The type of acceleration involved in steady-speed circular motion is the centripetal acceleration $a = v^2/r$ which is at each moment directed towards the center of the circle. The radius of the circle is $r = 12^2/3 = 48$ m. Thus, the car is at the present moment 48 m west of the center of its circular path; this is equally true in part (a) and part (b).