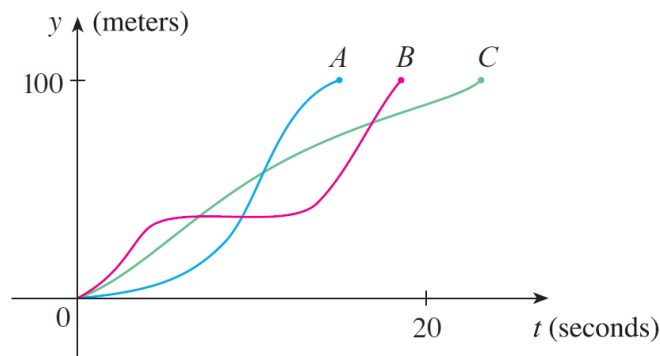


Exercise 14

Three runners compete in a 100-meter race. The graph depicts the distance run as a function of time for each runner. Describe in words what the graph tells you about this race. Who won the race? Did each runner finish the race?



Solution

Each runner finished the race because they all end at $y = 100$. Runner A won the race because he got to 100 meters in the shortest amount of time. The slope of each curve indicates the speed of each runner. Runner C went at the same speed for pretty much the whole race. Runner B started out strong but then burned out, had to stop and catch his breath, and then sprinted to the end. Runner A started off slow but then exploded midway, finishing first.