## Hill Problem

Alex runs up a hill and then back down to his starting point for a total distance of 12 kilometers. He runs $9 \mathrm{~km} / \mathrm{hr}$ uphill and $16 \mathrm{~km} / \mathrm{hr}$ downhill and uses the same straight path in both directions. What is Alex's distance from his starting point at any given moment during his run?

