

Questions are taken from the course book '*Physics with modern physics*', Richard Wolfson & J. M. Pasachoff,

Questions taken from course book pp 60 - 63

Question:

A cosmic ray plows into Earth's upper atmosphere, liberating a shower of subatomic particles. One of these particles moves downward 3.2km, then undergoes a collision after which it moves 1.6 km at 27° northward of the vertical. It then undergoes another collision that sends it moving horizontally eastward for 2.1 km before it annihilates with another particle. What is the magnitude of its displacement ?