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## Vector Based Word Problems - Guided Lesson

Complete the following problems:

1) A radar station detects an airplane at a position 150 km towards west. After 3 minutes, the airplane is at 200 km and at $50.0^{\circ}$ towards south of the radar base. Find the average velocity of the airplane.

2) Ronny goes to the market. He goes 120 km towards east from his home. After 2 minutes, Ronny is 220 km towards north. Find Ronny's average velocity.
3) Alan rides a bike from his school. He goes towards south at $20 \mathrm{~m} / \mathrm{s}$ and towards west at $15 \mathrm{~m} / \mathrm{s}$. What is his velocity relative to his friend waiting at school?
