Component Parts

1. You are driving along at 20 m/s on a road that heads at an angle of 25 ° W of N.
(a) At what rate are you going N

18.1 M/S

(b) At what rate are you going W?

8.5m/S

2. An airplane descending to the runway at 250 m/s is going at an angle of 22° with the horizontal. Find
(a) Its horizontal velocity

231 m/s

(b) Its rate of descent.

94m/S

3. You are going 20 m/s up a hill that makes an angle of 12° with the horizontal. How fast are you going
(a) Horizontally

19.6 m/S

(b) Vertically?

4.1 m/s