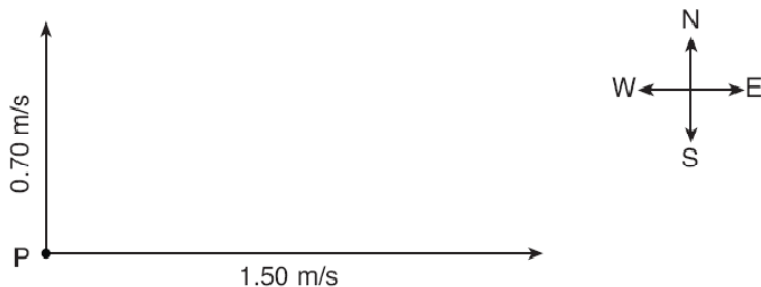Physics 4

Base your answers to questions 66 through 69 on the information and diagram below.

A model airplane heads due east at 1.50 meters per second, while the wind blows due north at 0.70 meter per second. The scaled diagram below represents these vector quantities.

66 Using a ruler, determine the scale used in the vector diagram. [1]

67 On the diagram *in your answer booklet*, use a protractor and a ruler to construct a vector to represent the resultant velocity of the airplane. Label the vector *R*. [1]

68 Determine the magnitude of the resultant velocity. [1]

69 Determine the angle between north and the resultant velocity. [1]