

The logo features a stylized sun with yellow rays at the top, two grey human figures in the center, and blue wavy lines at the bottom representing water or land.

State - Meghalaya

SATHEE

Teachers Name	Participated Students	Asked Question by
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School Name: K.V Nepa Barapani (Meghalaya)

Teachers Name	Participated Students
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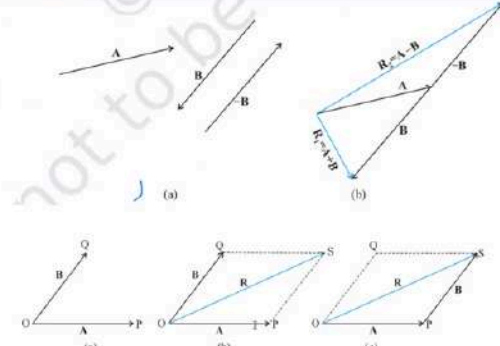
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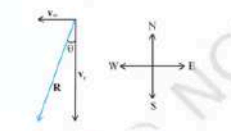
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Example 4.1 Rain is falling vertically with a speed of 35 m s⁻¹. Winds starts blowing after sometime with a speed of 12 m s⁻¹ in east to west direction. In which direction should a boy waiting at a bus stop hold his umbrella?



Answer The velocity of the rain and the wind are represented by the vectors v_r and v_w in Fig. 4.7 and are in the direction specified by the problem. Using the rule of vector addition, we see that the resultant of v_r and v_w is R as shown in the figure. The magnitude of R is $R = \sqrt{v_r^2 + v_w^2} = \sqrt{35^2 + 12^2} = 37 \text{ m s}^{-1}$.

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