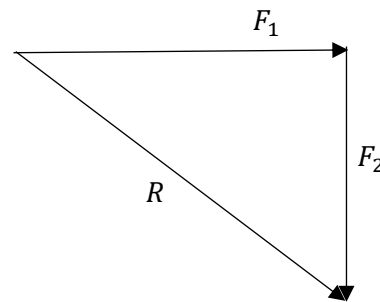


Answer on Question#74853 – Physics – Mechanics – Relativity

Two forces are of magnitude of 450N and 240N respectively. Determine the resultant force when the forces act at right angles to each other.

Solution. According to the condition of the problem, we have two forces $\vec{F}_1 = 450N$ and $\vec{F}_2 = 240N$ the forces act at right angles to each other. Let's draw a schematic drawing.



Find the magnitude of the resultant force R using the Pythagoras theorem.

$$R^2 = F_1^2 + F_2^2 \rightarrow R = \sqrt{F_1^2 + F_2^2}$$

Hence $R = \sqrt{450^2 + 240^2} = 510N$

Answer. 510N.

Answer provided by <https://www.AssignmentExpert.com>