

Answer on Question #50395 – Physics – Mechanics | Kinematics | Dynamics

The sum of two forces, one having a magnitude of 6 N acting due east and other having a magnitude of 7 N acting due north is

Solution:

We have two forces: $F_1 = 6N$ east, $F_2 = 7N$ north.

Using the Pythagorean Theorem:

$$F^2 = F_1^2 + F_2^2$$
$$F = \sqrt{F_1^2 + F_2^2} = \sqrt{(6N)^2 + (7N)^2} = 9.22N$$

Answer: the sum of two forces is equal 9.22N