A 100 N force and a 50 N force act concurrently on point P. The 100-N force acts due North. The 50-N force acts due East find the magnitude.

Solution:

Because two forces are perpendicular to each other, the magnitude of the net force

$$F = \sqrt{100^2 + 50^2} = 111.8 \text{ N}$$

Answer: 111.8 N