A boy is pushing a chair by applying a force of 5 newtons. His mother helps him push it faster by applying an additional force of 7 newtons in the same direction. What is the net force acting on the chair?

Solution:

Net force acting on the chair:

$$\vec{F}_{result} = \vec{F}_1 + \vec{F}_2$$
$$x: F_{result} = F_1 + F_2 = 5N + 7N = 12N$$

Answer: net force is 12N