A heavy ball with a mass of 3.5 kg is observed to accelerate at a rate of 6.0 m/s ^2. What is the size of the net force acting on this ball?

Solution

According to the Second Newton's law

$$F = ma,$$

where F – the net force acting on this ball, m – mass of the heavy ball, a – an acceleration of the ball.

$$F = 3.5 * 6.0 = 21\ N.$$

Answer: 21N.