An object of mass $m_1 = 2$ kg, moving with speed $V_{1i} = 12$ m/s, collides head-on with a stationary (ساكن) object whose mass is $m_2 = 6$ kg. Neglecting friction and given that the collision is elastic, the final speed of the second object just after the collision is:

- a. 5 m/s
- b. 4 m/s
- c. 2 m/s
- d. 3 m/s
- e. 6 m/s

Clear my choice

[1]

$$(m_1 v_1 + m_2 v_2)_i = (m_1 v_1 + m_2 v_2)_f$$

$$2 \times 12 + 0 = 0 + 6 * v_2$$

$$v_2 = 4 \text{ m/s}$$

Question 4

Not yet answered

Marked out of 2.50

Flag question

"The rebound coefficient in an inelastic collision is equal to one".

Select one:

- True
- False

[2] Flase

$r < 0$ → in inelastic collision