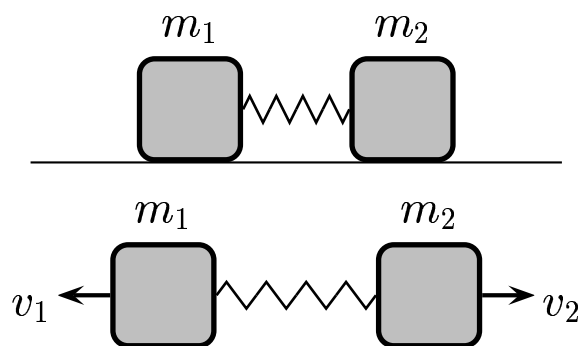


Consider two masses,  $m_2 = 2 m_1$ . They are pressed together against a spring.



When the two masses are released, find  $\frac{v_2}{v_1}$ .

- A)  $\frac{v_2}{v_1} = \frac{1}{2}$ .
- B)  $\frac{v_2}{v_1} = 1$ .
- C)  $\frac{v_2}{v_1} = 2$ .
- D)  $\frac{v_2}{v_1} = 4$ .

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From conservation of momentum, we have  $p_1 = p_2$  or  $m_1 v_1 = m_2 v_2$ , therefore,  $\frac{v_2}{v_1} = \frac{m_1}{m_2} = \frac{1}{2}$ .

Answer **A**.