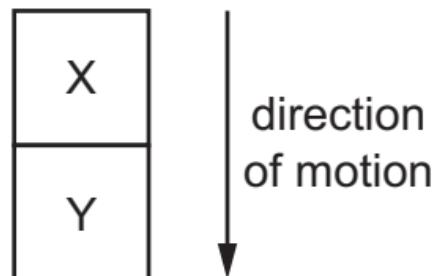


**14** Two blocks X and Y are falling through a vacuum in a uniform gravitational field, as shown.



Block X has weight  $2w$ .

Block Y has weight  $w$ .

The blocks do not move apart.

Which value best represents the force exerted by block X on block Y?

**A** 0

**B**  $w$

**C**  $1.5w$

**D**  $2w$

**15** A gas is contained inside a sealed syringe, as shown.