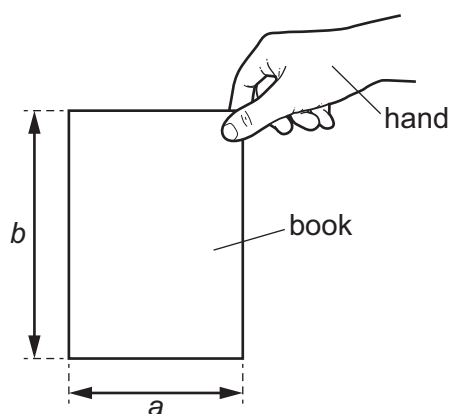


- 14 A book of weight  $W$  has a rectangular shape and is of uniform thickness. The book is held in a vertical plane so that the longer sides of the book are vertical, as shown.



Which expression gives the approximate torque exerted by the hand on the book?

- A  $\frac{Wa}{2}$  clockwise
  - B  $\frac{Wb}{2}$  anticlockwise
  - C  $Wa$  clockwise
  - D  $Wb$  anticlockwise
- 15 The derivation of the pressure equation  $\Delta p = \rho g \Delta h$  uses a number of relationships between quantities.

Which relationship is **not** used in the derivation of this equation?

- A density =  $\frac{\text{mass}}{\text{volume}}$
- B potential energy = mass  $\times$  acceleration of free fall  $\times$  height
- C pressure =  $\frac{\text{force}}{\text{area}}$
- D weight = mass  $\times$  acceleration of free fall