

- 11** A steel ball is falling at a constant (terminal) speed in still air. The forces acting on the ball are upthrust, viscous drag and weight.

What is the order of increasing magnitude of these three forces?

- A** upthrust \rightarrow viscous drag \rightarrow weight
B viscous drag \rightarrow upthrust \rightarrow weight
C viscous drag \rightarrow weight \rightarrow upthrust
D weight \rightarrow upthrust \rightarrow viscous drag
- 12** What is a couple?
- A** a pair of equal forces acting in the same direction but along different lines
B a pair of forces that are equal and opposite but acting along different lines
C a pair of forces that produce no resultant force and no resultant moment
D a pair of unequal forces acting in opposite directions but along the same line
- 13** Four coplanar forces act on a rigid rod, as shown. The rod is hinged at P.

Which force produces the greatest moment about point P?

