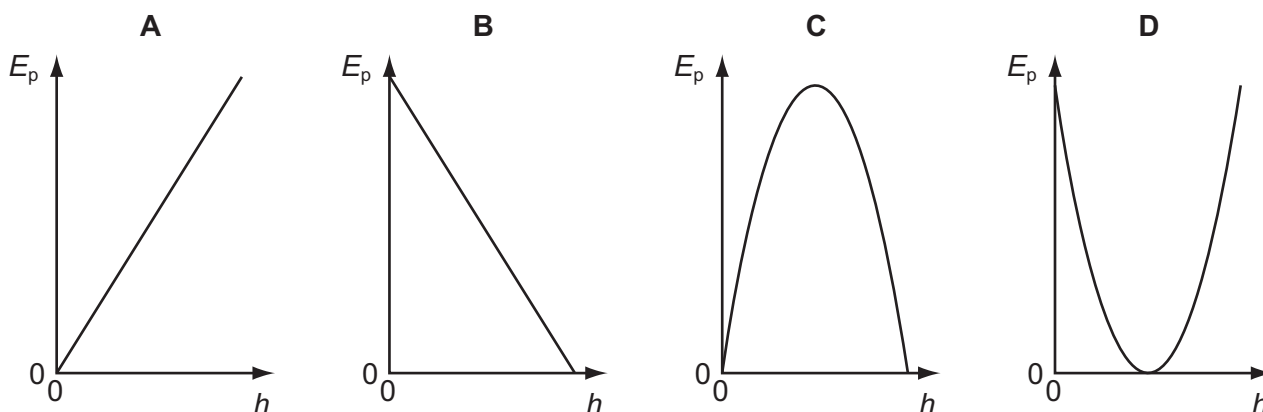
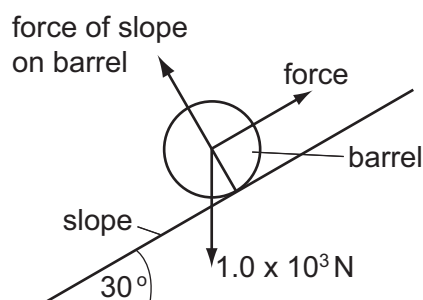


- 15 An object is thrown into the air.

Which graph shows how the potential energy  $E_p$  of the object varies with height  $h$  above the ground?



- 16 The diagram shows a barrel of weight  $1.0 \times 10^3 \text{ N}$  on a frictionless slope inclined at  $30^\circ$  to the horizontal.



A force is applied to the barrel to move it up the slope at constant speed. The force is parallel to the slope.

What is the work done in moving the barrel a distance of 5.0 m up the slope?

- A**  $1.0 \times 10^4 \text{ J}$       **B**  $2.5 \times 10^3 \text{ J}$       **C**  $4.3 \times 10^3 \text{ J}$       **D**  $5.0 \times 10^3 \text{ J}$
- 17 Why does the pressure increase when a sealed container of gas is heated?
- A** The gas molecules collide more often with each other.  
**B** The gas molecules expand when they are heated.  
**C** The gas molecules travel faster and hit the walls of the container more often.  
**D** There are more gas molecules present to collide with the walls of the container.