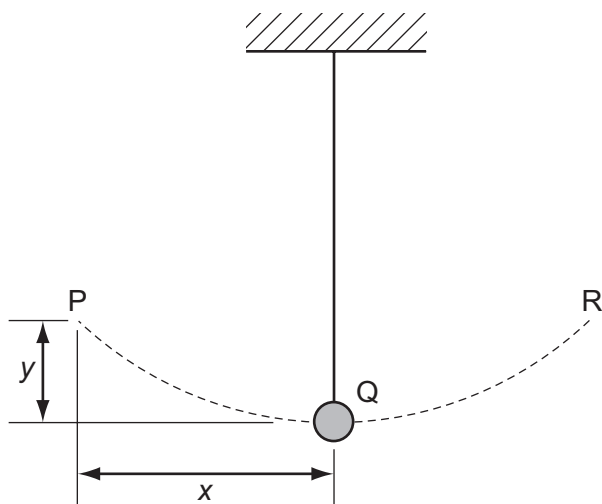


- 17 A pendulum bob oscillates between P and R.



Assuming the gravitational potential energy lost in moving from P to Q is converted into kinetic energy, what is the speed of the bob at Q?

- A $\sqrt{2gx}$ B $2gx$ C $\sqrt{2gy}$ D $2gy$
- 18 Which operation involves the greatest mean power?
- A a car moving against a resistive force of 0.4 kN at a constant speed of 20 m s^{-1}
B a crane lifting a weight of 3 kN at a speed of 2 m s^{-1}
C a crane lifting a weight of 5 kN at a speed of 1 m s^{-1}
D a weight being pulled across a horizontal surface at a speed of 6 m s^{-1} against a frictional force of 1.5 kN
- 19 Which properties best describe modelling clay?
- A brittle and ductile
B ductile and elastic
C elastic and plastic
D plastic and ductile
- 20 Why does the pressure of a gas increase when the gas is compressed at constant temperature?
- A The gas molecules collide more often with each other.
B The gas molecules expand under pressure.
C The gas molecules hit the walls of the container more frequently.
D The gas molecules travel faster.