7.3 Principle of Conservation of Energy

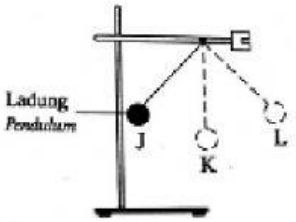
1. Complete the principle of conservation of energy below:

form	changed	created	equal	destroyed

a) The Principle of Conservation of Energy states that energy cannot be _____ or _____ but can only be _____ from one _____ to another.

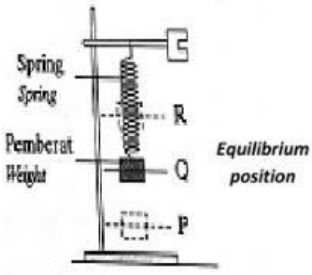
b) The amount of energy before the changes is _____ to the amount of energy after the changes.

2. State the change in the form of energy:



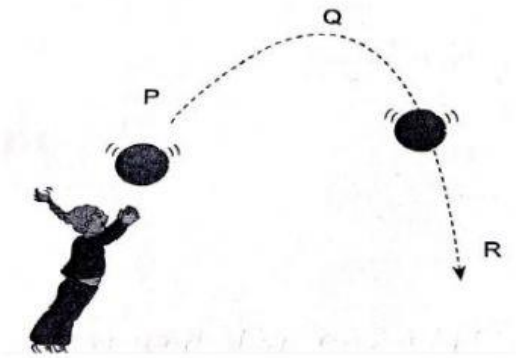
Direction of oscillation	Changes in the form of energy
J → K	_____energy → _____ energy
K → L	_____energy → _____energy

3. State the amount of energy:



Position of spring	Amount of energy	
	Elastic potential energy	Kinetic energy
P → Q		
Q → R		
R → Q		

4. State the types of energy possessed by the ball at point:

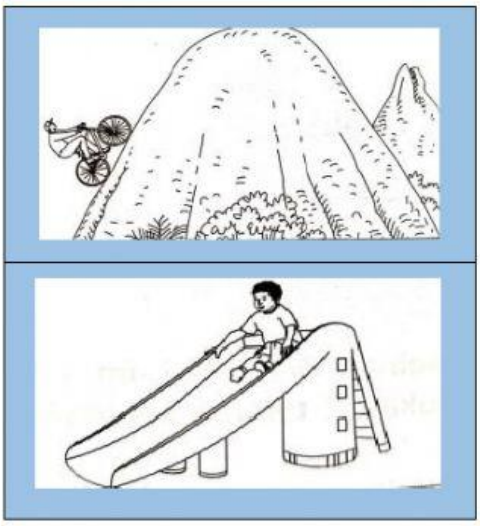


P : _____energy

Q: _____ energy

R: _____ energy

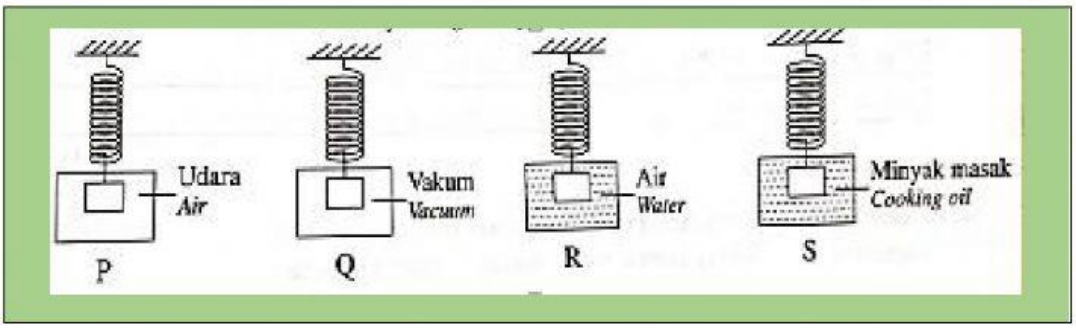
5. Match the diagram below to the energy changes that occur.



Potential energy to kinetic energy

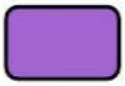
Kinetic energy to potential energy

6. The following diagram shows the oscillationof a weighted spring in different media.



a) State the energy change in the oscillating system.

b) Which of the springs, P,Q,R or S will stop oscillating first? Give one reason for your answer.

 will stop first. A lot of energy is used to overcome _____.

 has the biggest _____.