## K Edication Centre

## GCSE Physics Forces P10

Forces And Motion Assignment-1

Assignment Questions
©KEducationCentre
Year 2022

## P10 : Force and Motion Assignment-1

Q1 : Describe Newton' s First law of motion

Q2: Copy and complete the table:

|  | Force (N) | Mass in kg | Acceleration $\left(\mathrm{m} / \mathrm{s}^{2}\right)$ |
| :--- | :--- | :--- | :--- |
| a) |  | 30 | 0.60 |
| b) | 100 |  | 0.30 |
| c) |  | 100 | 1.23 |
| d) | 85 | 7.5 |  |
| e) | 100 | 8 |  |
| f) | 1000 |  | 3.5 |

Q3: Describe Newton's Second law of motion.

Q4: Calculate the resultant force on an object of mass 36 kg when it has an acceleration of $5.0 \mathrm{~m} / \mathrm{s}^{2}$.

Q5: Calculate the acceleration of an object with mass 16.0 kg acted on by a resultant force of 150 N .

Q6: A car and a trailer have a total mass of 2400 kg . Calculate the force needed to accelerate the car and the trailer at $5.0 \mathrm{~m} / \mathrm{s}^{2}$.

Q7 : What is inertia ? Explain in terms of newton's first law of motion.

Q8: What is the weight of the object on Moon, if the weight of the object on the surface of the earth is 112 kg . The gravitational field on the strength of the moon is one sixth of that Moon.

