

## P2 Force Revision Sheet

1. What is a resultant force? [1]	A single force which is the result of 2 or more forces acting on an object.
2. What is the unit of force? [1]	Newton
3. What is the equation relating force, mass and acceleration? [1]	$F = m a$
4. When an object moves through air or water they experience this force [1]	Drag force
5. Define acceleration [1]	The rate at which velocity changes.
6. What is a reaction force? [1]	The surface an object rests on exerts an equal and opposite force, called the reaction force
7. What are the forces acting on a book on a table?	<ul style="list-style-type: none"> <li>• Weight (downwards)</li> <li>• Reaction (upwards)</li> </ul>
8. What law states extension of the material is proportional to the force applied? [1]	Hooke's Law
9. What does elastic mean? [1]	When an object recovers its original shape after a force has been applied
10. What are the horizontal forces acting on an accelerating car? [3]	<ul style="list-style-type: none"> <li>• Thrust</li> <li>• friction</li> <li>• in opposite directions</li> </ul>
11. What are the vertical forces acting on a boat? [2]	<ul style="list-style-type: none"> <li>• Weight (downwards)</li> <li>• Upthrust or buoyancy (upwards)</li> </ul>
12. If there is a resultant force on a moving object will it accelerate or travel at a steady speed? [1]	Accelerate
13. To change the acceleration of an object you would need to change... [2]	<ul style="list-style-type: none"> <li>• Force on the object</li> <li>• Mass of the object</li> </ul>
14. The name given to energy stored in a stretched elastic band [1]	Elastic potential energy
15. When 2 objects interact, the forces they exert on each other are said to be... [1]	Equal and opposite
16. What is the name of the force that causes heating effects? [1]	Friction
17. What is the unit of mass? [1]	Kilograms

18. Name the letters in this equation $F = m a$	F = force (N) a = acceleration ( $m/s^2$ ) m = mass (kg)
19. If an object has an acceleration of $10 m/s^2$ and a mass of 2 kg what is the size of the force?	
20. If an object has an acceleration of $5 m/s^2$ and a mass of 20 kg what is the size of the force?	
21. If a 20N force is applied to a mass of 2 kg what is the acceleration?	
22. If a 15N force is applied to a mass of 3 kg what is the acceleration?	
23. What is the mass of a toy car if it has an acceleration of $2 m/s^2$ when a force of 8 N is applied?	
24. Name the letters in $F = ke$	F = force (N) k = spring constant (N/m) e = extension (m)
25. If a spring with a spring constant of 10 N/m, stretches 0.5 m, what was the force applied?	
26. If a spring with a spring constant of 5 N/m, stretches 2 m, what was the force applied?	
27. If a spring with a spring constant of 5 N/m, stretches 20 cm, what was the force applied?	
28. If a force of 10N is applied to a spring with a spring constant of 5 N/m, how much does the spring stretch?	
29. If a force of 50N is applied to a spring which stretches 2 m, what is the size of the spring constant?	