Mechanics 1

Pearson Edexcel · International A-Level · Mathematics · Vocabulary in context

Word	Example
• **particle** /ˈpɑːtɪkl/	Model the box as a **particle**, so its size does not matter.
— **rod** /rɒd/	A **rod** is a long, thin object that does not bend.
lamina /ˈlæmɪnə/	A **lamina** is a flat shape with no thickness.
rigid body /ˈrɪdʒɪd ˈbɒdi/	A wheel can be treated as a **rigid body**.
inextensible string /ˌɪnekˈstensɪbl strɪŋ/	An **inextensible string** does not stretch.
smooth surface /smuːð ˈsɜːfɪs/	A **smooth surface** has no friction.
rough surface /rʌf ˈsɜːfɪs/	A **rough surface** has friction.
pulley /ˈpʊli/	The rope passes over a **pulley**.
resultant /rɪˈzʌltənt/	The **resultant** of two forces is the single force that has the same effect as both together.
bearing /ˈbeərɪŋ/	The ship sails on a **bearing** of 090°, due east. 090°
impulse /ˈɪmpʌls/	A kick gives the ball an **impulse**.
normal reaction /ˈnɔːml rɪˈækʃn/	The **normal reaction** pushes up on a box sitting on a table.

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coefficient of friction /ˌkəʊɪˈfɪʃənt ɒv ˈfrɪkʃn/	The **coefficient of friction** μ shows how rough two surfaces are. μ
equilibrium /ˌiːkwɪˈlɪbrɪəm/	The book is in **equilibrium** because the forces balance.
tension /ˈtenʃn/	The **tension** in the rope holds up the lamp.
moment of a force /ˈməʊmənt əvə fɔːs/	The **moment of a force** is the force times its distance from the pivot.