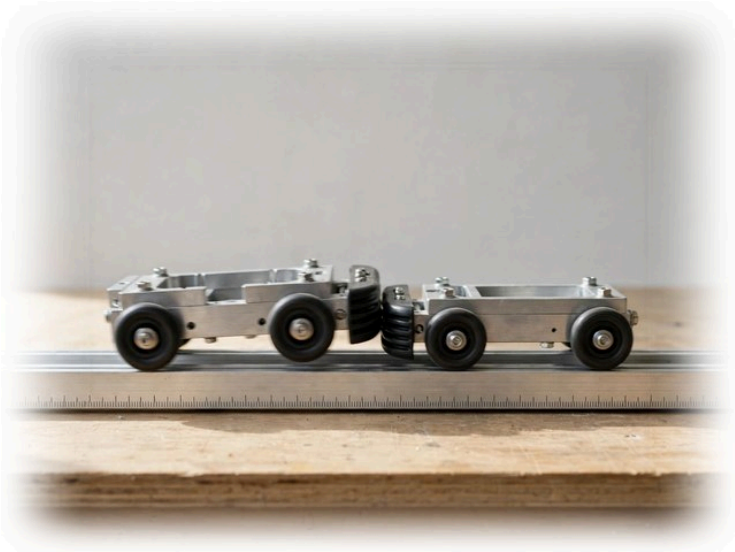
NOVA SCOTIA ADVANCED PHYSICS 11 · UNIT B · 5 QUESTIONS

Forces and Force Vectors, Newtons Laws, Friction and Inclined Planes — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Two small metal dynamics carts on a straight aluminium track on a laboratory bench, one cart touching the other as they collide, plain light background. A laboratory cart of mass 25 kilograms accelerates at 2 metres per second squared. The net force, in newtons, is**



ANSWER

Understand It with Pulse | Flag a mistake

2 **A vector at 30 degrees to the horizontal has a horizontal component found using**

- A cosine of the angle
- B sine of the angle only
- C tangent only
- D the full vector only

Understand It with Pulse | Flag a mistake

3 **A vector at 30 degrees to the horizontal has a vertical component found using**

- A cosine of the angle only
- B sine of the angle
- C tangent only
- D the full vector only

Understand It with Pulse | Flag a mistake

4 **A weight of 200 newtons on a slope has a parallel component of 100 newtons and friction of 40 newtons. The net force down the slope, in newtons, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **Air resistance increases with speed and eventually can balance weight, giving**

A terminal velocity

B zero velocity

C free fall

D greater acceleration

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. 50
2. A
3. B
4. 60
5. A

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