

PHYSICAL SCIENCES P.1

MEMO-2024



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

G.12

NATIONAL
SENIOR CERTIFICATE

1 times by adding different masses to increase the hanging mass each time.
the effects of air friction.



data obtained were used to draw the sketch graph below.



length. The spring then falls to the ground.
Trolley A moves to the left, while trolley B moves to the right and then up a frictionless inclined plane, rising to a maximum vertical height of 1,5 m, as shown in the diagram below.

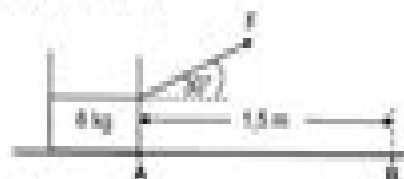


- Ignore the rotational effects of the wheels.
- 6.1 Write down the principle of conservation of mechanical energy in words. (2)
 - 6.2 Calculate the speed of trolley B at the bottom of the inclined plane. (4)
 - 6.3 For the frequency that the spring takes to return to its natural length. (2)

(4 new pages.)

is applied at an angle of 30° to the horizontal.
ly at rest, as shown in the diagram below.

on of 10 N acts on the crate as it moves from rest at point A up
point B. The distance between point A and point B is 1,5
at point B is 2 m s^{-1} .



is work done by a force.

of free-body diagram showing ALL the forces acting on the crate.

IF PRINCIPLES ONLY, calculate the magnitude of force F.

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Anthony S. Fauci



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