AP PHY summer work.

There are 5 questions available on the form at the link listed below. The written work behind the answer is the important part of this assignment. The quiz can be used to verify the correct answers. A drop box will be set up after Canvas enrollment is complete. Email Mr. Hurst at ahurst@rvgs.k12.va.us with any questions.

https://forms.office.com/Pages/ResponsePage.aspx?id=RCi4CQkh80yD_BW9RaoixnL-mxdwbrNIvq8AL1nFA61URU1XUEZMWURIM1lMMjFJSkRXRTgzTkEwVC4u

1

Conversion problem.
A density in g/cubic inch is a strange set of units that nobody uses. Physicists work in kg/m3. Convert 14.0 g/cubic inch into kg/m3. Work should be demonstrated in a method sometimes referred to as dimensional analysis or factor label method.
Type your answer into the box with 3 significant digits. Do not type units or commas. For example if you believe the answer is 435679 kg/m3, you would type 436000 into the answer box.

2

Vector problem.
Determine the resultant vector.
(45 N at 24° North of East) + (36 N at 28° North of West) – (5.0 N South)

Vectors have direction and magnitude, and your submitted work should include both. Type only the magnitude into the box with 2 significant digits. Do not type units or commas.

3

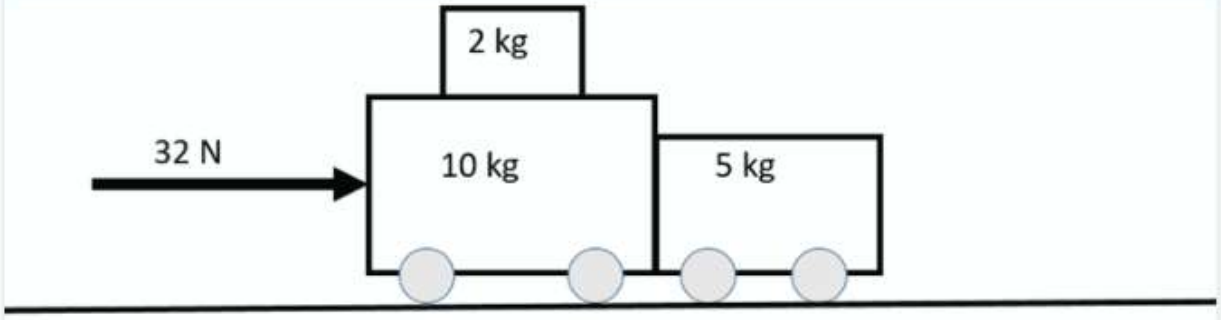
Projectile problem.

A cannon ball is launched at a 28.4° angle at 25 m/s. There is a building 42 m away. How far off the ground does the ball hit the building?
Type your answer with 2 significant digits. Do not type units or commas.

4

Force Problem.

A 32 N force pushes the 10kg cart. As a result the 10kg cart, 5 kg cart, and 2 kg block move to the right. Friction prevents the 2 kg block from slipping. Determine the amount of that friction in Newtons.
Type your answer with 2 significant digits. Do not type units or commas.
(1 Point)



5

The box begins at rest. What will be the max height of the box? Type your answer with 2 significant digits. Do not type units or commas.
(1 Point)