

## OSU Academic Integrity Statement

During this quiz you are not to receive information, nor communicate with anyone, about the form, content, length, or difficulty of this quiz. Additionally, you are not to use any unauthorized resources while taking this quiz.

**The allowed resources are:** any notes you have collected during this course (handwritten, printed, or saved locally on your computer), blank sheets of paper or a digital tablet, writing utensil, a ruler, a protractor, and a non-communicating calculator. **Accessing the internet** while taking the quiz for any reason other than downloading, viewing, or turning in the quiz **is strictly prohibited**.

Receiving information or discussing details about this quiz between the time of its release and a time 48 hours later is strictly prohibited and is in violation of Oregon State University's Code of Student Conduct.

<https://studentlife.oregonstate.edu/studentconduct/academicmisconduct>

Any incidence of academic misconduct will be dealt with in accordance with Oregon State University's policies.

# Physics 201

## Weekly Quiz 5 | Corvallis Campus

10/28/2020

Collaboration is not allowed. You will have 30 minutes to download, solve, take pictures, AND upload this exam to Gradescope.

1. In another atmospheric science experiment, Benny launches an improved model rocket from rest on the Earth's surface. For the first 5.00 seconds of its flight, assuming a standard coordinate system, Benny measures the rocket's acceleration to be  $\langle 2, 15 \rangle$  m/s<sup>2</sup>. At exactly 5.00 seconds into the flight, the thrusters on the rocket turn off. The rocket continues upwards until reaching its maximum height, when it sends a location signal back to Benny.

What is the **horizontal** distance travelled by the rocket between launch and the moment it reaches its maximum height? (assume no wind and no air resistance)