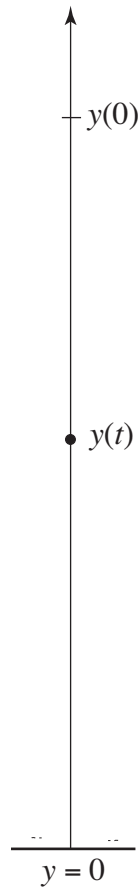


**Quiz****Name**

On the planet Krypton, gravity works differently than here on Earth. The downward acceleration that it produces near its surface has a magnitude of 11 meters/second<sup>2</sup> (instead of 9.8 m/s<sup>2</sup>). The gas that makes up the atmosphere of Krypton resists the motion of objects by reducing the effect of gravity by 3 m/s<sup>2</sup>. Lois Lane on a visit to Superman, slips and falls (with zero initial velocity) from a tower on Krypton that is 100 meters high.



1. How much time will Superman have to swoop in and catch Lois before she hits the ground?

2. Alas, Superman is late. With what speed will Lois hit the ground?