

Rocket Acceleration Lab



You have been working problems that relate time, distance, velocity, acceleration, and force.

Build a rocket, fire it and compare theoretical height to actual height. The rocket engine will be an A8-3.

It has a max. force of about 11.0n, an impulse of 2.5N.s, a thrust burn of .60s and a 3.0s delay from the time the thrust burns out and the ejection charge is fired.

Objective	Your score	Point value
Build Rockets with partner.		2
Labeled sketch (on back)		2
Calculations		
Force due to gravity.		1
Max Force due to engine during burn.		1
Net force on Rocket		1
V_f of rocket using impulse of rocket minus the impulse caused by gravity.		1
Ave. Velocity during engine burn.		1
Ave. Acceleration during engine Burn.		1
Height Rocket Reaches during Burn.		1
Height Rocket reaches 3.0 seconds after burn out (chute eject charge).		1
Total Height		1
Measured Height		1
Reason for difference. What factors would need to be taken into consideration if you were to create an equation for air resistance?		1