# Flying with Style Activity – Rocket Launch Worksheet – Sample Answer Key

### Directions

You should have already completed building your rocket, following the instructions included with your rocket kit. Once finished with the construction of your rocket, see your teacher to install the wadding to protect your rocket parachute from engine burn.

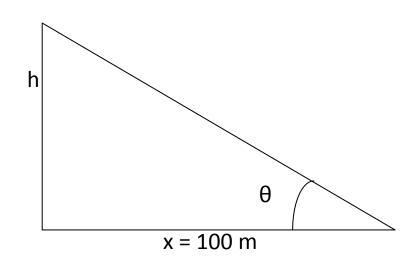
#### **Altimeter Procedure**

Place a team member 100 m from the launch pad to use the altimeter.

#### Calculations

Calculate the actual height of your rocket launch.

1. Predicted launch height <u>100</u> m (*take this value from your calculated height from the* Rocket Calculation Worksheet *completed in the associated lesson*)



Actual launch height 58 m 100 tan 30 = 100\*(0.57735) = 57.735  $\approx 58$ 

## Analysis

Possible reasons the actual height was different than the predicted height?

More air resistance, sideways flight, mass inconsistent, thrust does not increase linearly, rocket was not actually weighed, etc.

