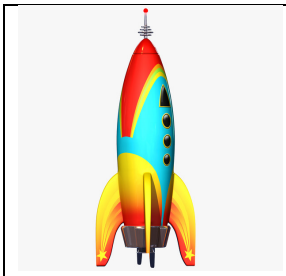

Name _____

Considering a Toy Rocket

$d = vt$ $v_f = v_i + at$ $d = v_i t + (1/2)at^2$ $g = 9.8\ m/s^2$

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A toy rocket is launched straight up in the air at a speed of 34.3 m/s. How long does it take to reach its high point?

$v_i = 34.3$ m/s

$v_f = 0$ m/s

a = ____ m/s^2

t = ?

How high does the rocket go?

d = ?

How long does it take for the rocket to come down from its high point?

d = 60 m

$v_i = 0$ m/s

a = ____ m/s^2

t = ?

$d = vt$ $v_f = v_i + at$ $d = v_i t + (1/2)at^2$ $g = 9.8\ m/s^2$

What was the speed of the rocket when it hit the ground?

What goes up, must come down. How does the time of the rocket going up compare to the time of the rocket coming down?

How does the speed of the rocket when it is launched compare to the speed of the rocket when it lands?

A rocket that is launched straight up in the air and comes straight back down is travelling in the vertical direction only. An object can travel in the vertical and the horizontal directions at the same time. Give three examples of an object travelling in the vertical and horizontal directions.

Answers: 3.5 s 60 m 3.5 s 34.3 m/s