Kinematics #4

$v = \frac{d}{t}$ $a = \frac{\Delta v}{t}$ $v_f = v_i + at$ $d = v_i t + \frac{1}{2}at^2$ $v_f^2 = v_i^2 + 2ad$

"Old Faithful"   "The Big Chalupa"   "Ain't Got no Time"

1. You drop a rock off the side of a cliff. How much time does it take to fall **265 cm**?

2. A bicycle is going forward at 18 m/s. The cyclist slams on the brakes, and it comes to a stop in 3 seconds. What is the acceleration of the bicycle?

3. On earth, the acceleration of gravity is 9.8 m/s². On the moon, the acceleration of gravity is only 1.63 m/s². If you throw a ball straight up on the moon with an initial velocity of 4 m/s, how high will it go?