

Name: _____

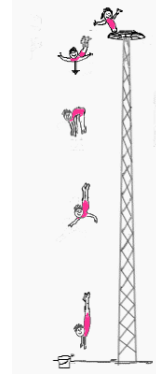
Date: _____

Period: _____

Milk or dark chocolate: _____

Free Fallin'

- 1) A platform diver of the Ringling Brothers' Circus, dives from a 19.6-meter high platform into a shallow bucket of water (see picture to the right). Use the appropriate free fall equations to fill in the table below. Show your work in each box.



Time	Velocity	Distance Fallen	Height
0 s			
0.5 s			
1 s			
1.5 s			
2.5 s			
3 s			

- 2) Michael Jordan was said to have a hang-time of 3.0 seconds (at least according to a popular NIKE commercial). Determine the height to which he could leap if he was wearing NIKE shoes and had a hang-time of 3.0 seconds.
- 3) Kalani threw a sock filled with marbles straight up for a total time of 9 seconds.
- What was the sock's initial velocity?
 - What will its instantaneous velocity after 2 seconds?
 - Draw a diagram of the sock's entire path in the air; label the velocity at each second (including the peak of the throw).