

Horizontal Shooting

Physics

Name _____

1 2 3 4 5 6 7 8

1. A giraffe is wearing leg warmers and rollerblades as he approaches the edge of a cliff. If he rolls off horizontally at 7 m/s, fill in the following table for the giraffe's motion in the next five seconds.

Time	V_x	ΔX	V_y	ΔY
0 sec				
1 sec				
2 sec				
3 sec				
4 sec				
5 sec				

2. A large bear wearing undersized clothing is riding a skateboard. He rolls horizontally off of a cliff and spends 1.67 seconds in the air. If he lands 23 meters from the edge of this cliff, how fast was he initially moving?

3. A small platypus is wearing gold chains and saggy jeans. If he bowls a bowling ball horizontally off a 14m cliff, and notes that the ball lands 20 meters from the base of the cliff, how long did the bowling ball spend in the air?

4. A snooty owl drives his fancy car while texting. If he drives horizontally off a cliff at 34 meters per second, and lands 15 meters from the base, how tall was the cliff that he drove off of?

5. A hipster hippo rides his vintage bike toward a cliff. If he wants to land in a record store that is 75 meters from the bottom of a 100 meter tall cliff, how fast should he ride horizontally off the cliff?

6. A turtle riding a tank is driving toward a horizontal cliff at 12 m/s. How high should the cliff be if the turtle wants to spend 10 seconds in the air?