**Cliff Problem Note Guide - Videos 3G Name**

**Red Elk throws a ball with a purely horizontal velocity from the roof of a building that is 21 m tall. The ball lands 17 m from the base of the building.**

a) What time is the ball in the air? b) What is the final vertical velocity?

c) What is the horizontal velocity?

d) What is the velocity of impact in terms of an angle and a magnitude?

|  |  |
| --- | --- |
| H | V |
| x  vi  vf  a  t | x  vi  vf  a  t |

(Do the back side too)

**Red Elk runs at 4.5 m/s horizontally from the top of a cliff and lands in the water 6.2 m from the base of the cliff.**

a) What time is he in the air? b) What is his final vertical velocity?

c) How tall is the cliff?

d) What is the velocity of impact in terms of an angle and a magnitude?

|  |  |
| --- | --- |
| H | V |
| x  vi  vf  a  t | x  vi  vf  a  t |