Quiz 7

Name:

Perm Number:

$1)$ The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height h of the TV.

$2)$ If $f(n) = n^2 - 1$, compute $\sum\limits_{n=0}^{4} f(n)$.

$y =$

$3)$ If x is changed from 2 to $2 + h$, find the change in $f(x) = 12 + x - x^2$. (Your final answer should be in terms of h.)

$$y = \boxed{}$$

$4)$ Consider $f(x)$ from problem 3 above, and suppose that $f(x)$ is the height (in meters) of boulder x seconds after being launched from a catapult. In your own words, how could we use the answer from problem 3 to find the velocity of the boulder exactly 2 seconds after it was launched?