

1) This elevation-vs-time graph shows how the elevation of a ball changes as it rolls down a ramp.
a. Estimate the number of inches of change in elevation of the ball from 0 sec . to 0.5 sec .
b. Estimate the number of inches of change in elevation of the ball from 1 sec . to 1.5 sec .

c. Does the ball fall faster near the top of the ramp at the beginning of its journey or near the bottom of the ramp? How do you know?
2) Plot the points ( $x, y$ ) in this table on a graph (except when $x=5$ ).

| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| y | 0 | 1.5 | 4 | 7.5 | 12 |  | 24 |

a. The $y$-values in the table follow a regular pattern that can be discovered by computing the difference between consecutive $y$ values. Find the pattern and use it to find the missing $y$-value.
b. Plot the point you found in (a). Draw a curve through all the points on your graph. Does the point you found in (a) seem to fit in?
c. How is this graph similar to the other graphs from today? How is it different?


