

## HW2

1.a. Discrete algorithm . Because it is really easy for us to convert the graph based on data distribution.

b.  $f(a) = L + 1000t$

2. When number of points sampled goes to infinity, the data will be more accuracy. The ratio will be the total number of points in the tree.

3.  $O(\log_K(n))$

4. Sound sensor's speed is so slow. Laser scanner is using light. The light moves much faster.

5. a  $2 \cdot (15/300) = 0.1s$

b The speed of light is too fast.

6. a. Accuracy is 30m radius

Precision is the circle which has 3m as diameter

b.  $18000 \text{ readings/hour} = 5 \text{ readings/sec}$ , which is 5hz.