

CSE 332/564 - Homework 1
 Spring 2009
 Due Thursday, March 5 in class

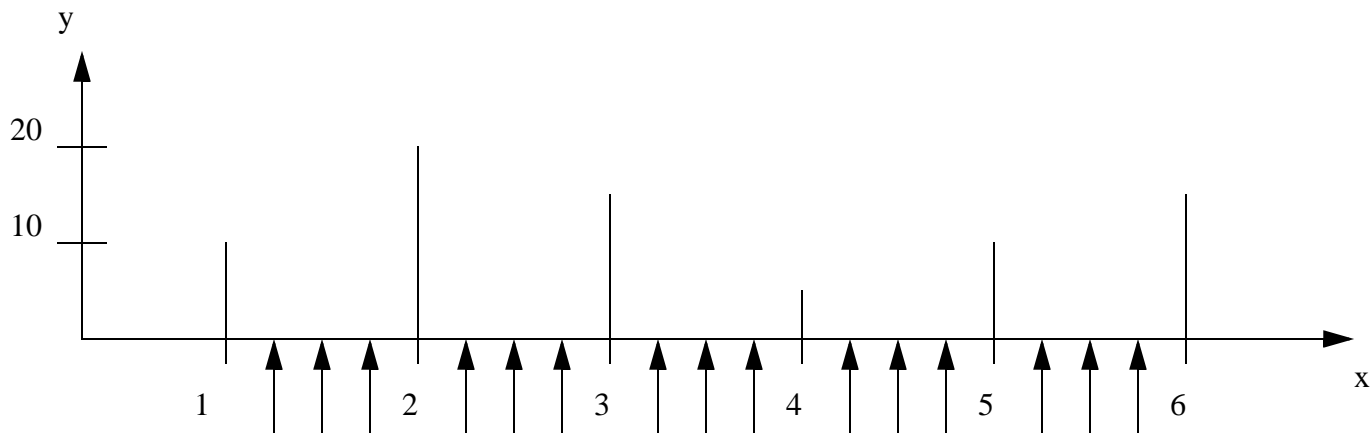
1. Interpolation (1D):

Estimate the values of the points indicated by arrows using

a) nearest neighbor interpolation (assume $x=0.5$ behaves like $x=0.4999$)

b) linear interpolation

(Note, the height of the bars is in quarters of the unit length of the grid).



c) What can you say about other points in this interval for each of the two filters. What is the shape of the curve they fall on? Draw each curve into the figure.

2. Interpolation (2D):

From the grid values given next to the full circles, estimate the values of the points indicated by the the two hollow circles with coordinates $(x,y) = (1.3, 1.2)$ and $(x,y) = (2.8, 1.7)$ using

a) nearest neighbor interpolation

b) bilinear interpolation

