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).

2. Interpolation (2D):
From the grid values given next to the full circles, estimate the values of the points indicated by 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
3. **Data acquisition:**
Consider the object in the figure below (left). Use the densities and shapes and construct the projection images on the four projection planes indicated. Use a continuous representation (no need to discretize or sample).

4. **Object reconstruction:**
In the same figure, now consider the projections given on the right. Assume that all objects have the same densities. Try to reconstruct these, again using continuous representations. Think of a backprojection as a long shadow, where the shadow strength is given by the height of the object in the projection.