

Name _____

Tables for simple Models (Densities) Math 151

Day _____

Each small square has area $1/100$ or $.01$. (Each big square has 25 small squares, or $25/100$ or $.25$.)

1) Convince yourself that each density actually has area 1, using geometry and/or counting squares.

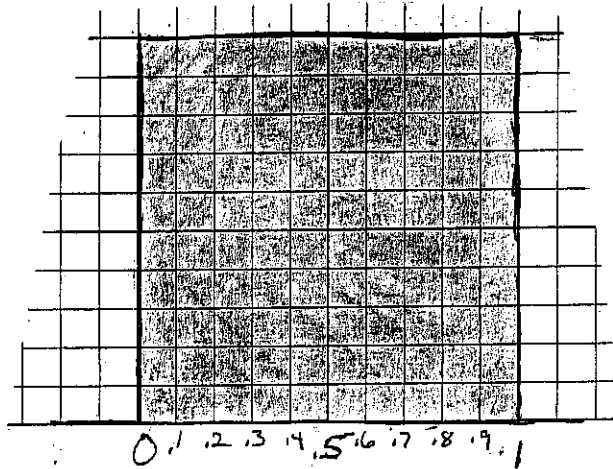
2) Fill in the missing values in the tables, using geometry and/or counting squares and parts of squares. Each value is the area under the curve to the left of the "x" value. It represents the proportion of observations below x.

3) Answer the extra questions.

A. Uniform

Uniform from 0 to 1

x	Area to the left of x
0	
.1	
.2	
.3	
.4	
.5	
.6	
.7	
.8	
.9	
1.0	
1.1	

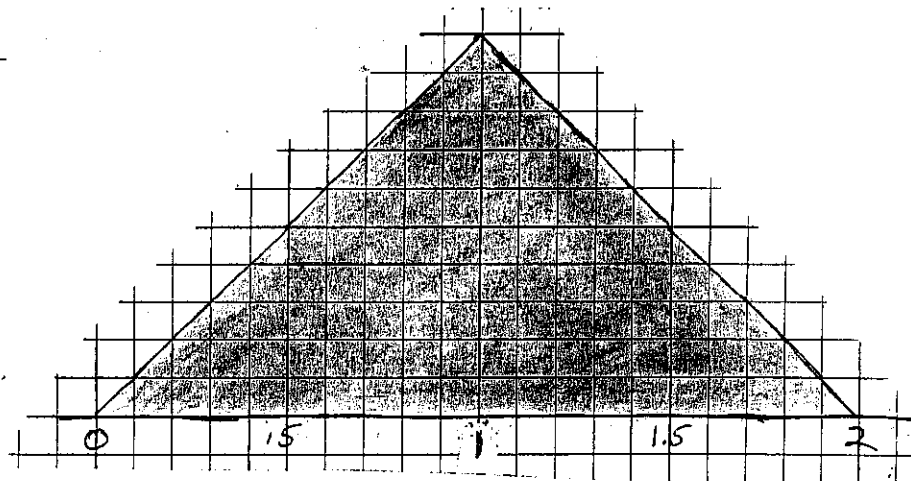


- a) The area below (to the left of) .6 is ____ To the right of .6 is ____ . They sum to ____
- b) The area to the left of .6 is ____ Below .2 is ____ . Between .2 and .6 is ____
- c) What x value has area .4 TO THE RIGHT OF it? ____
What is the 60th percentile? ____

B. Triangular

Triangular from 0 to 2

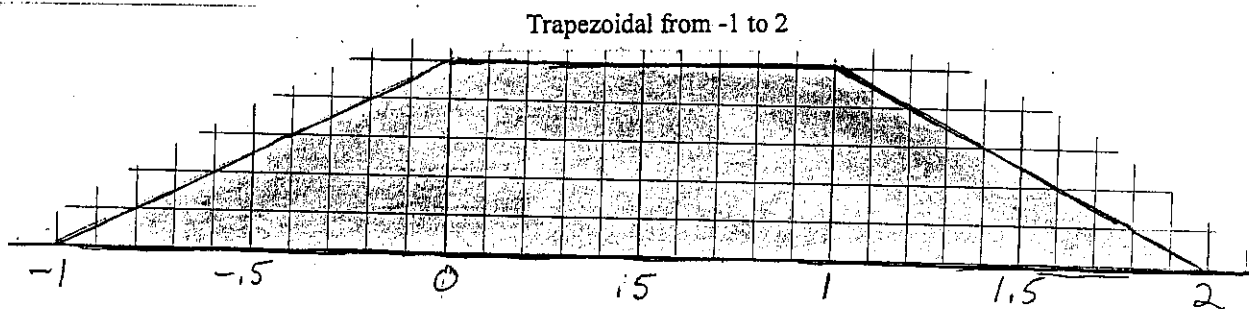
x	Area to the left of x
0	
.2	
.4	
.6	
.8	
1	
1.2	
1.4	
1.6	
1.8	
2.0	



- a) The area to the left of .6 is ____ To the right of .6 is ____ . They sum to ____
- b) The area below 1.6 is ____ Below 1 is ____ . Between 1 and 1.6 is ____
- c) What x value has area .92 ABOVE it? ____
(Hint: What x value has area .08 Below it?) What is the 8th percentile? ____

C. Trapezoidal

x	Area to left of x
-1.0	
-.8	
-.6	
-.4	
-.2	
0	
.2	
.4	
.6	
.8	
1.0	
1.2	
1.4	
1.6	
1.8	
2	



- The area to the left of -0.8 is _____. To the right of -0.8 is _____. They sum to _____.
- The area to the left of 1 is _____. To the left of -0.8 is _____. Between -0.8 and 1 is _____.
- What are the Quartiles (x-values that divide the density into quarters) $Q1$ _____ Median _____ $Q3$ _____.