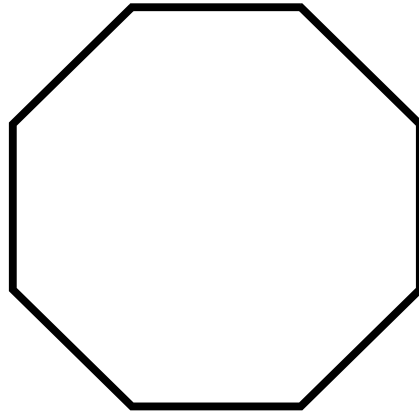


Name _____ Period ____ Date _____

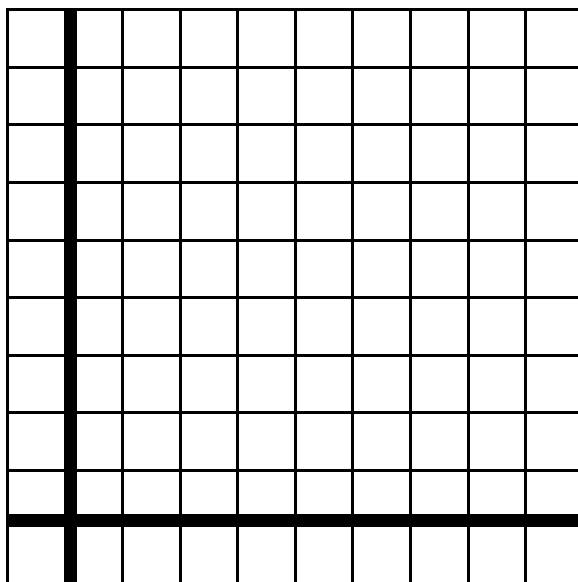
1. What is the probability of randomly selecting one of the longest diagonals from among all the diagonals of a regular octagon.



2. Given \overline{AB} , what is the probability of randomly selecting a point on the segment closer to point A than to point B.



3. Graph the points $(1,0)$, $(7,0)$, and $(4,6)$. Connect the three points to form a triangle. Graph the points $(0,0)$, $(0,8)$, $(8,8)$, and $(8,0)$. Connect these four points in order to form a rectangle. Find the probability of selecting a random point that inside the rectangle, but outside the triangle.



4. At a party the students were having a dart game with the dart board below. Find the probability of landing in the darkest section on the dart board.

