GEOMETRY | Activity 0420 | Name:
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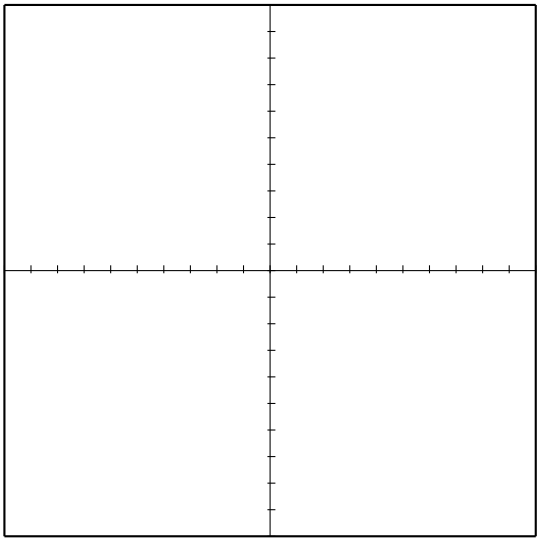
Problem 1. Let $Q = (2, 3)$. Let T be the transformation which is rotation about Q by $90°$

(a) Let $A = (2, 2)$, $B = (5, 2)$, and $C = (6, 0)$.
Let $A' = T(A)$, $B' = T(B)$, and $C' = T(C)$.
Find A', B', and C'.

(b) Sketch the point Q, the triangle $\triangle ABC$, and the triangle $\triangle A'B'C'$.



Problem 2. Let L be the line with equation $y = 2x - 4$. Let T be the transformation which is reflection across the line L.

(a) Let $P = (7, 3)$. Find $T(P)$.

(b) Let C be the circle with radius 2 centered around P.
Let $T(C)$ denote the image of this circle under the transformation T.
Find an equation for $T(C)$.

(c) Sketch L, P, $T(P)$, C, and $T(C)$.