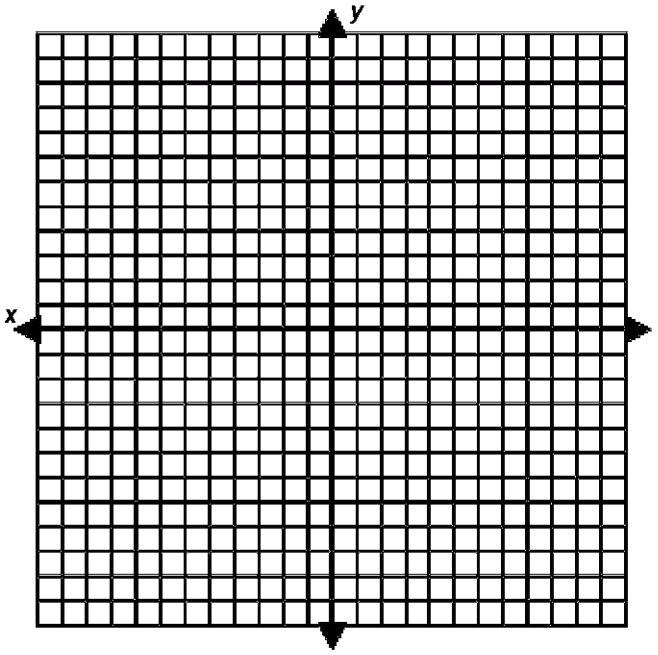
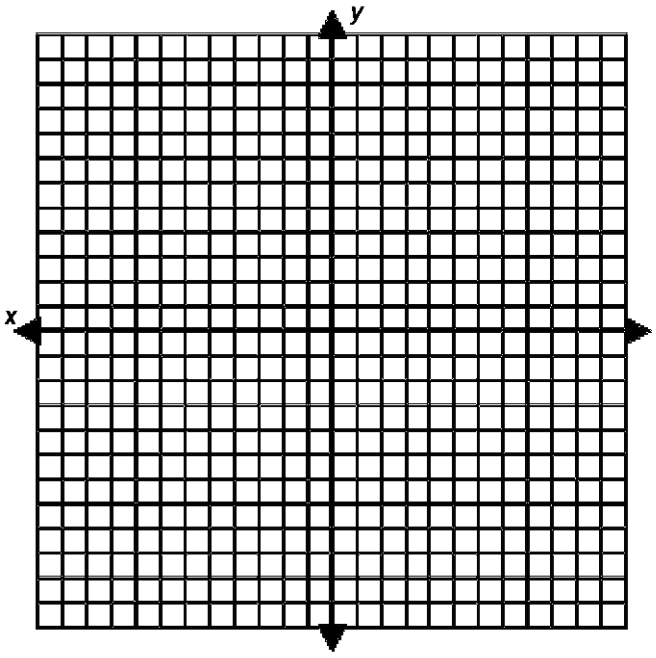
Geometry H
Dilations Extension Homework

Name: _____
Date: _____ Period: _____

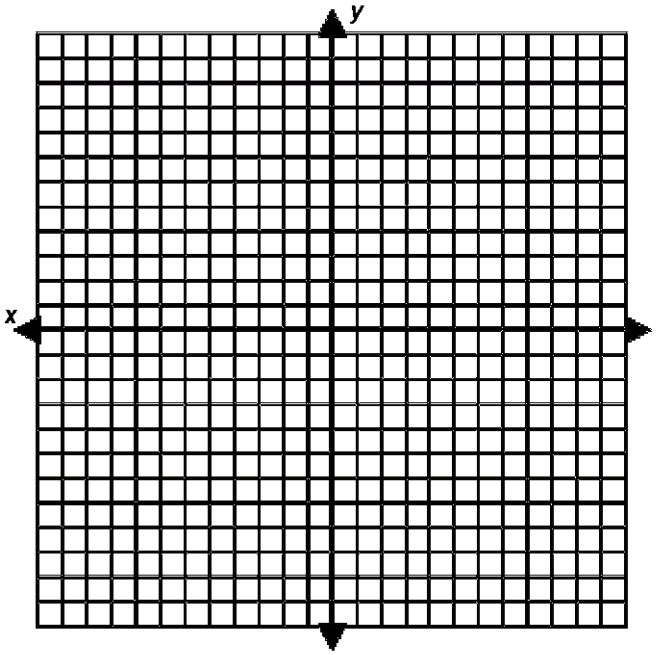
1. Find the coordinates of the dilation image of $\overline{ST}$ centered at point (6, -4) with a scale factor of ½ given coordinates S(-2, 4) and T(2, 2).



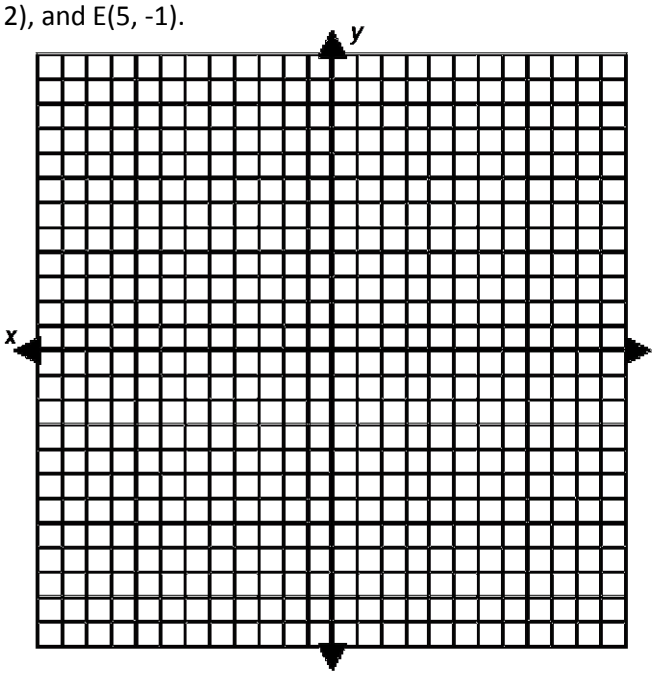
2. Find the coordinates of the dilation image of ΔHAT centered at the point (1, 2) with a scale factor of 2 given coordinates H(-1, -1), A(1, 0), and T(-1, 2).



3. Find the coordinates of the dilation image of ΔIBM centered at the point (-2, 1) with a scale factor of $\frac{1}{3}$ given coordinates I(1, -2), B(1, 4), and M(4, 1).



4. Find the coordinates of the dilation image of quadrilateral $BCDE$ centered at the point (-4, -4) with a scale factor of 3 given coordinates B(-1, -1), C(-1, 2), D(2, 2), and E(5, -1).



Answer Key:

1. S'(2, 0) T'(4, -1)
2. H'(-3, -4) A'(1, -2) T'(-3, 2)
3. I'(-1, 0) B'(-1, 2) M'(0, 1)
4. B'(5, 5) C'(5, 14) D'(14, 14) E'(23, 5)