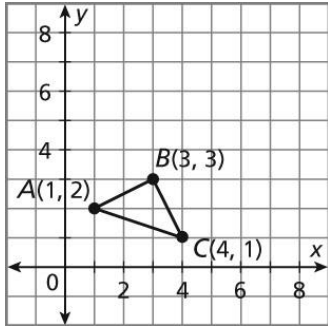


Day 1 – Dilations and Scale Factor

Apply the dilation D to the polygon with the given vertices. Describe the dilation as an enlargement or a reduction.

1. $D: (x, y) \rightarrow (2x, 2y)$

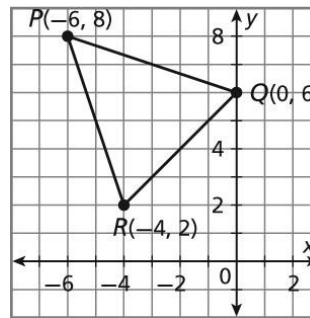
$A(1, 2), B(3, 3), C(4, 1)$



A' _____
 B' _____
 C' _____

2. $D: (x, y) \rightarrow (\frac{1}{2}x, \frac{1}{2}y)$

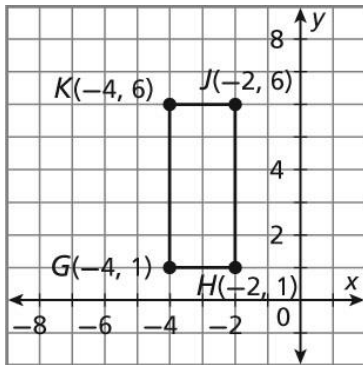
$P(-6, 8), Q(0, 6), R(-4, 2)$



P' _____
 Q' _____
 R' _____

3. $D: (x, y) \rightarrow (1.5x, 1.5y)$

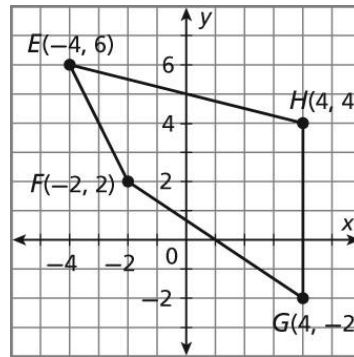
$G(-4, 1), H(-2, 1), J(-2, 6), K(-4, 6)$



G' _____
 H' _____
 J' _____
 K' _____

4. $D: (x, y) \rightarrow (0.75x, 0.75y)$

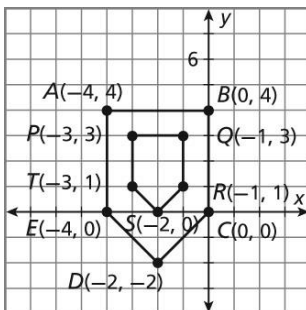
$E(-4, 6), F(-2, 2), G(4, -2), H(4, 4)$



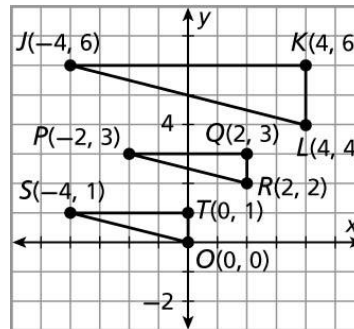
E' _____
 F' _____
 G' _____
 H' _____

Determine whether the polygons with the given vertices are similar. *Hint: check the lengths of their sides.*

5. $A(-4, 4), B(0, 4), C(0, 0), D(-2, -2),$
 $E(-4, 0); P(-3, 3), Q(-1, 3), R(-1, 1),$
 $S(-2, 0), T(-3, 1)$



6. $J(-4, 6), K(4, 6), L(4, 4); P(-2, 3),$
 $Q(2, 3), R(2, 2); S(-4, 1), T(0, 1), O(0, 0)$



Each pair of figures is similar. Find the Missing Side.

