Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_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.

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| 1. D: (x, y) → (2x, 2y)  A(1, 2), B(3, 3), C(4, 1)  BUGE11SE_C07_L02A_T01  A’ \_\_\_\_\_\_\_\_\_  B’ \_\_\_\_\_\_\_\_\_  C’ \_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 2. D: (x, y) → (x, y)  P(6, 8), Q(0, 6), R( –4, 2)  BUGE11SE_C07_L02A_T03  P’ \_\_\_\_\_\_\_\_\_  Q’ \_\_\_\_\_\_\_\_\_  R’ \_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 3. D: (x, y) → (1.5x, 1.5y)  G(4, 1), H(2, 1), J(2, 6), K(4, 6)  BUGE11SE_C07_L02A_T05\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  G’ \_\_\_\_\_\_\_\_\_  H’ \_\_\_\_\_\_\_\_\_  J’ \_\_\_\_\_\_\_\_\_  K’ \_\_\_\_\_\_\_\_\_ | 4. D: (x, y) → (0.75x, 0.75y)  E(4, 6), F(2, 2), G(4, 2), H (4, 4)  BUGE11SE_C07_L02A_T07\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  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)  BUGE11SE_C07_L02A_T09 | 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)  *BUGE11SE_C07_L02A_T10* |

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



