


- opposite angles are congruent
- 2 pairs of parallel sides
- 2 pairs of opposite sides congruent

- opposite angles are congruent
- 2 pairs of parallel sides
- 4 congruent sides

- 4 right angles
- 2 pairs of parallel sides
- 2 pairs of opposite sides congruent

- 4 right angles
- 2 pairs of parallel sides
- 4 congruent sides

- may have zero or two right angles
- exactly one pair of parallel sides
- may have one pair of congruent sides

- one pair of opposite congruent angles
- 2 pairs of adjacent congruent sides




| Preimage | Image |
| :---: | :---: |
| $\mathrm{A}(-3,0)$ | $\mathrm{A}^{\prime}(0,3)$ |
| $\mathrm{B}(-3,3)$ | $\mathrm{B}^{\prime}(3,3)$ |
| $\mathrm{C}(-1,3)$ | $\mathrm{C}^{\prime}(3,1)$ |
| $\mathrm{D}(-1,0)$ | $\mathrm{D}^{\prime}(0,1)$ |



| Preimage | Image |
| :---: | :---: |
| $\mathrm{D}(1,-2)$ | $\mathrm{D}^{\prime}(-1,-2)$ |
| $\mathrm{E}(3,-2)$ | $\mathrm{E}^{\prime}(-3,-2)$ |
| $\mathrm{F}(3,2)$ | $\mathrm{F}^{\prime}(-3,2)$ |



| Preimage | Image |
| :---: | :---: |
| $\mathrm{A}(1,2)$ | $\mathrm{A}^{\prime}(-2,-3)$ |
| $\mathrm{B}(3,2)$ | $\mathrm{B}^{\prime}(0,-3)$ |
| $\mathrm{C}(4,3)$ | $\mathrm{C}^{\prime}(1,-2)$ |
| $\mathrm{D}(3,4)$ | $\mathrm{D}^{\prime}(0,-1)$ |
| $\mathrm{E}(1,4)$ | $\mathrm{E}^{\prime}(-2,-1)$ |


center of dilation $=(0,0)$
scale factor $=\frac{1}{2}$

| Preimage | Image |
| :---: | :---: |
| $A(0,4)$ | $A^{\prime}(0,2)$ |
| $B(4,0)$ | $B^{\prime}(2,0)$ |
| $C(0,0)$ | $C^{\prime}(0,0)$ |

center of dilation $=(0,0)$
scale factor $=2$

| Preimage | Image |
| :---: | :---: |
| $\mathrm{G}(0,-2)$ | $\mathrm{G}^{\prime}(0,-4)$ |
| $\mathrm{H}(0,0)$ | $\mathrm{H}^{\prime}(0,0)$ |
| $\mathrm{J}(1,0)$ | $\mathrm{J}^{\prime}(2,0)$ |
| $\mathrm{K}(2,-1)$ | $\mathrm{K}^{\prime}(4,-2)$ |
| $\mathrm{L}(1,-2)$ | $\mathrm{L}^{\prime}(2,-4)$ |




