**Chapter 9 Homework** SCORE \_\_\_\_\_\_\_\_\_\_\_

 **1.** Write the coordinates of the image of *P*(–2, 5) reflected in the x-axis.

 **2.** Graph △ *ABC* with vertices *A*(4, 4), *B*(3, –2), and *C*(–1, –1). Then graph the image of △*ABC* reflected in the *y*-axis.

** 3.** How many lines of symmetry
does this figure have?

 **4.** Find the image of $\overbar{WX}$with *W*(7, 1) and *X*(–4, 5) along the translation vector 〈–4, –3〉.

 **5.** Find the image of $\overbar{AB}$with *A*(–3, 1) and *B*(–1, 5) under a rotation of 90°
about the origin.

 **6.** Find the coordinates of *L*′′ if △*LMN* with *L*(3, 1), *M*(–1, 6), and *N*(–3, 2) is rotated 270° about the origin.

 **7.** Triangle *ABC* with vertices *A*(–4, –4), *B*(–1, –2), *C*(3, –1) is rotated 180° about the origin. What are the coordinates of triangle *A*′*B*′*C*′?

**8.** What transformation is represented?

**9.** What is the order and magnitude of rotational symmetry of a square?

**10.** Find the image of the point at (5, 1) under the translation along the vector 〈–9, 6〉.

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**2.**

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**10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**11.** Given △*ABC* with vertices *A*(1, 0), *B*(6, –7), and *C*(0, –4). Find the coordinates of the vertices of the triangle along the translation vector 〈0, –4〉.

**11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**