**Graphing Dilations Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per. \_\_\_\_\_**

1. Find the coordinates of the image of a dilation of the point (6, 9) by a scale factor of  with the center of dilation at the origin.
2. Find the coordinates of the image of a dilation of the point (-2, 4) by a scale factor of 2 with the center of dilation at the origin.

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1. Find the coordinates of the image of a dilation of the point (-7, -4) by a scale factor of  with the center of dilation at the (3, 6).

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1. Find the coordinates of the image of a dilation of the point (5, -7) by a scale factor of  with the center of dilation at the (-7, 8).