

NAME: _____

P.I. G.G.58: Define, investigate, justify, and apply similarities (dilations)

1. Find the image of (4, 8) for a dilation centered at the origin with scale factor 3.
2. Find the image of (3, -2) for a dilation centered at the origin with scale factor $\frac{1}{2}$.
3. Find the image of (-2, 1) for a dilation centered at the origin with scale factor 2.
4. Find the image of (-6, -6) for a dilation centered at the origin with scale factor $\frac{3}{4}$.
5. Find the image of (5, 5) for a dilation centered at the origin with scale factor $\frac{3}{4}$.
6. Find the image of (1, -9) for a dilation centered at the origin with scale factor 2.
7. Find the image of (8, 3) for a dilation centered at the origin with scale factor 3.
8. Find the image of (-7, 7) for a dilation centered at the origin with scale factor $\frac{1}{2}$.
9. Find the image of (-9, -4) for a dilation centered at the origin with scale factor $\frac{3}{4}$.
10. Find the image of (4, 2) for a dilation centered at the origin with scale factor 2.

[1] $(12, 24)$

[2] $\left(\frac{3}{2}, -1\right)$

[3] $(-4, 2)$

[4] $\left(-\frac{9}{2}, -\frac{9}{2}\right)$

[5] $\left(\frac{15}{4}, \frac{15}{4}\right)$

[6] $(2, -18)$

[7] $(24, 9)$

[8] $\left(-\frac{7}{2}, \frac{7}{2}\right)$

[9] $\left(-\frac{27}{4}, -3\right)$

[10] $(8, 4)$
