Name : _____

Dilation

Sheet 3

1) The vertices X(–6, –6), Y(0, 6) and Z(–12, 12) are dilated to X′(–5, –6), Y′(2, 8) and Z′(–12, 15) with a scale factor of $\frac{7}{6}$. Find the center of dilation.

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2) The dilated coordinates are A′(–5, –3), B′(5, –13) and C′(10, –8). Find the original coordinates, if the center of dilation is (0, 2) and the scale factor is 5.

_____

3) Write the coordinat e scale factor is $\frac{4}{7}$.

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4) PQRS is dilated to P′ tion is (–2, 3). The coordinates of the c and S(4, 9). Find the dilated coordinates.

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5) KLMN is dilated to K ation is (–5, –6). The coordinates of the c 11) and N(10, 4). Find the dilated coordina

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6) Write the coordinate rule, when the center of dilation is $\left(-9, \frac{3}{4}\right)$ and the scale factor is $\frac{2}{3}$.

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Name : _____

Answer key

Dilation

Sheet 3

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P′

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K′(–5, 21), L′(–14, –6), M′(13, –15), N′(22, 12)

6) Write the coordinate rule, when the center of dilation is $\left(-9, \frac{3}{4}\right)$ and the scale factor is $\frac{2}{3}$.

$$\left(\frac{2}{3}x - 3, \frac{2}{3}y + \frac{1}{4}\right)$$