

- 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 coordinates of the original figure.

the scale factor is  $\frac{4}{7}$ .

- 4) PQRS is dilated to P'Q'R'S'. Find the coordinates of the original figure and the dilated coordinates.

the center of dilation is  $(-2, 3)$ . The coordinates of P' are  $(-1, 4)$  and S(4, 9). Find the coordinates of Q, R and S.

- 5) KLMN is dilated to K'L'M'N'. Find the coordinates of the original figure and the dilated coordinates.

the center of dilation is  $(-5, -6)$ . The coordinates of K' are  $(-1, 1)$  and N(10, 4). Find the coordinates of L, M and N.

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

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- 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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**$(-12, -6)$**

- 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 coordinate rule for the dilation.

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the scale factor is  $\frac{4}{7}$ .

- 4) PQRS is dilated to P'Q'R'S'. Find the coordinates of the original figure if the dilated coordinates are P'(-2, 3), Q'(4, 9), R'(10, 15) and S'(16, 21).

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tion is  $(-2, 3)$ . The center of dilation is  $(-2, 3)$ . The coordinates of the original figure are Q and S(4, 9). Find the coordinate rule for the dilation.

- 5) KLMN is dilated to K'L'M'N'. Find the coordinates of the original figure if the dilated coordinates are K'(11, 17), L'(-14, -6), M'(13, -15) and N'(22, 12).

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ation is  $(-5, -6)$ . The coordinates of the original figure are L(11) and N(10, 4). Find the coordinate rule for the dilation.

**$K'(-5, 21), L'(-14, -6), M'(13, -15), N'(22, 12)$**

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

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

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