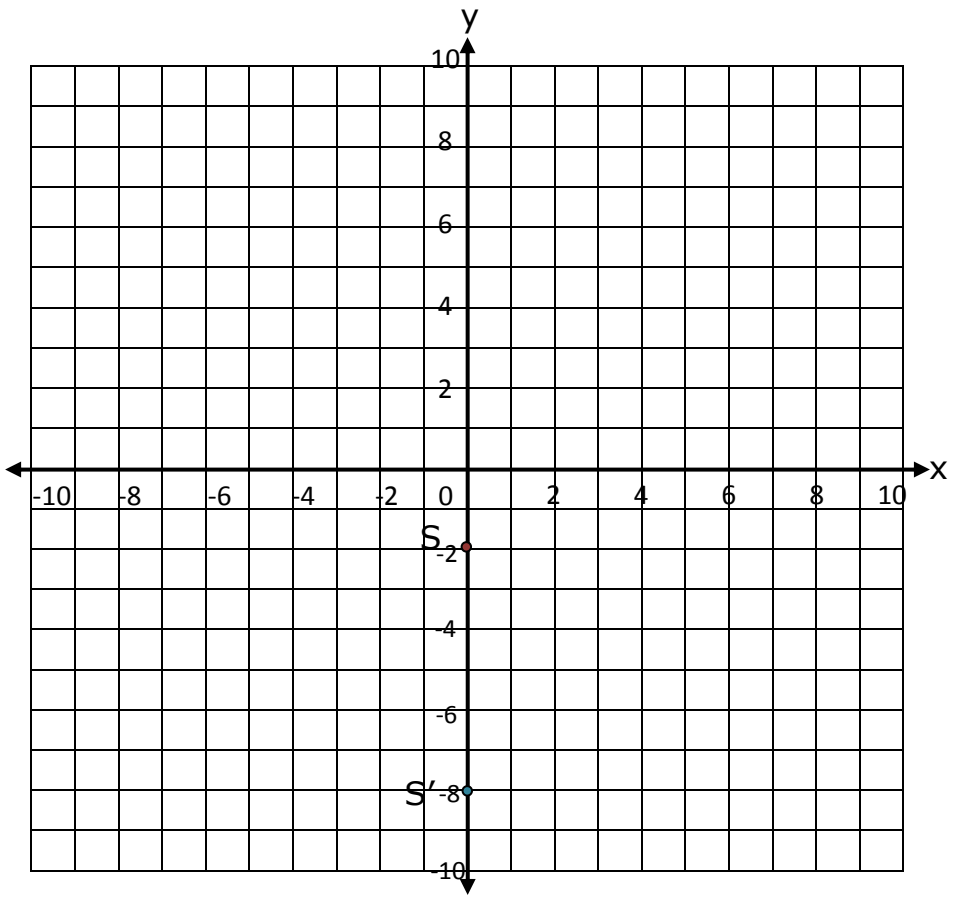
Name _____ Date _____

Dilations and Scale Factors - Guided Lesson Explanation

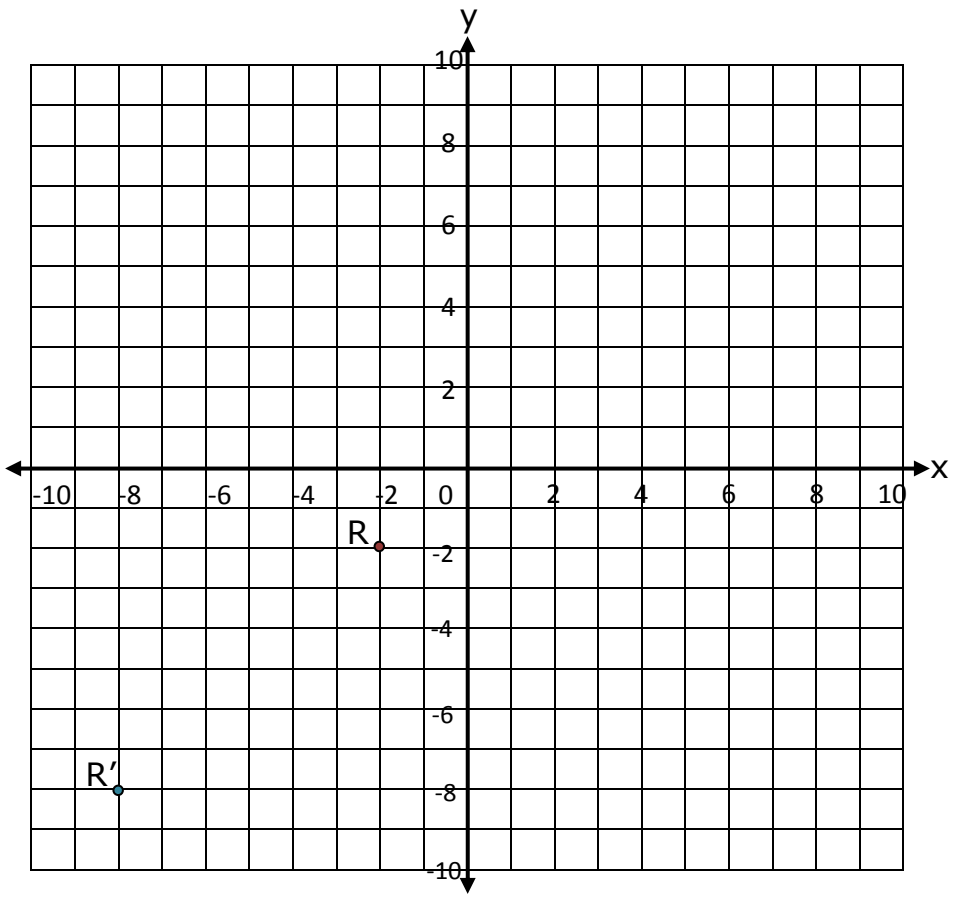
Explanation # 1

This dilation is centered at the origin, so you can find the image by multiplying the x- and y-coordinates by the scale factor. Multiply the coordinates of point R(0, -2) by 4. The image is R'(0, -8).



Now multiply the coordinates of point *S*(-2, -2) by 4. The image is *S'*(-8, -8).

Name _____ Date _____

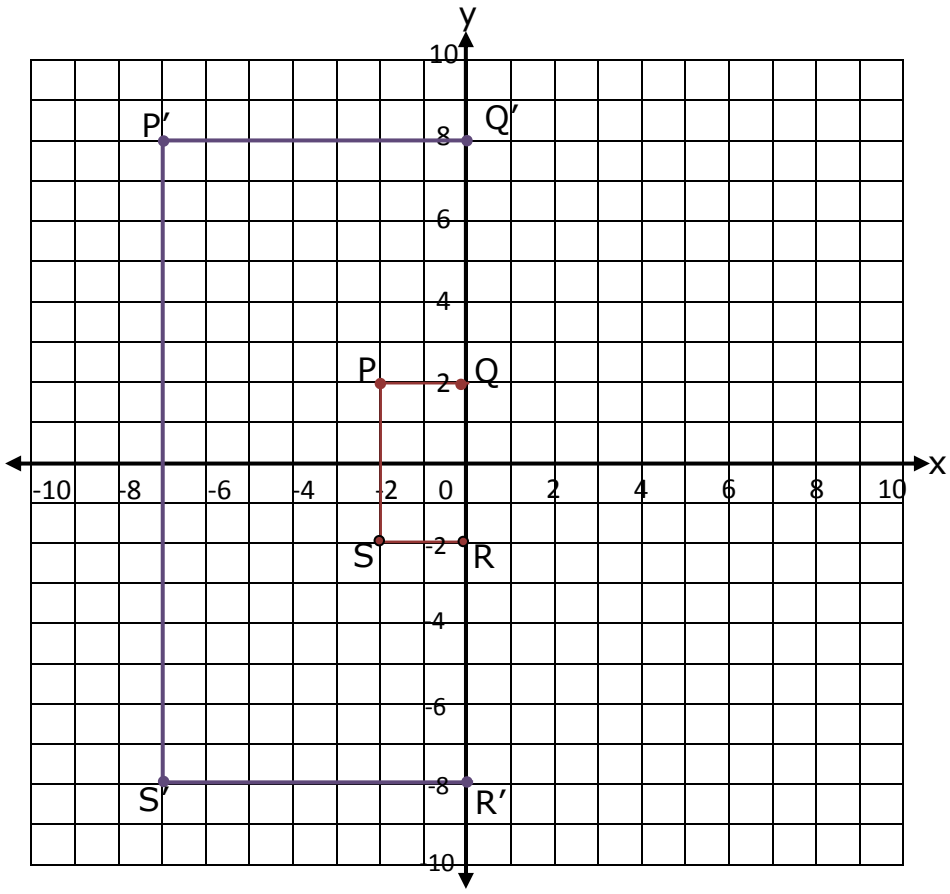


Now multiply the coordinates of points P(-2, 2) and Q(0, 2) by 4.

The images are P'(-8, 8) and Q'(0, 8).

The dilated points form a rectangle similar to PQRS.

Name _____ Date _____



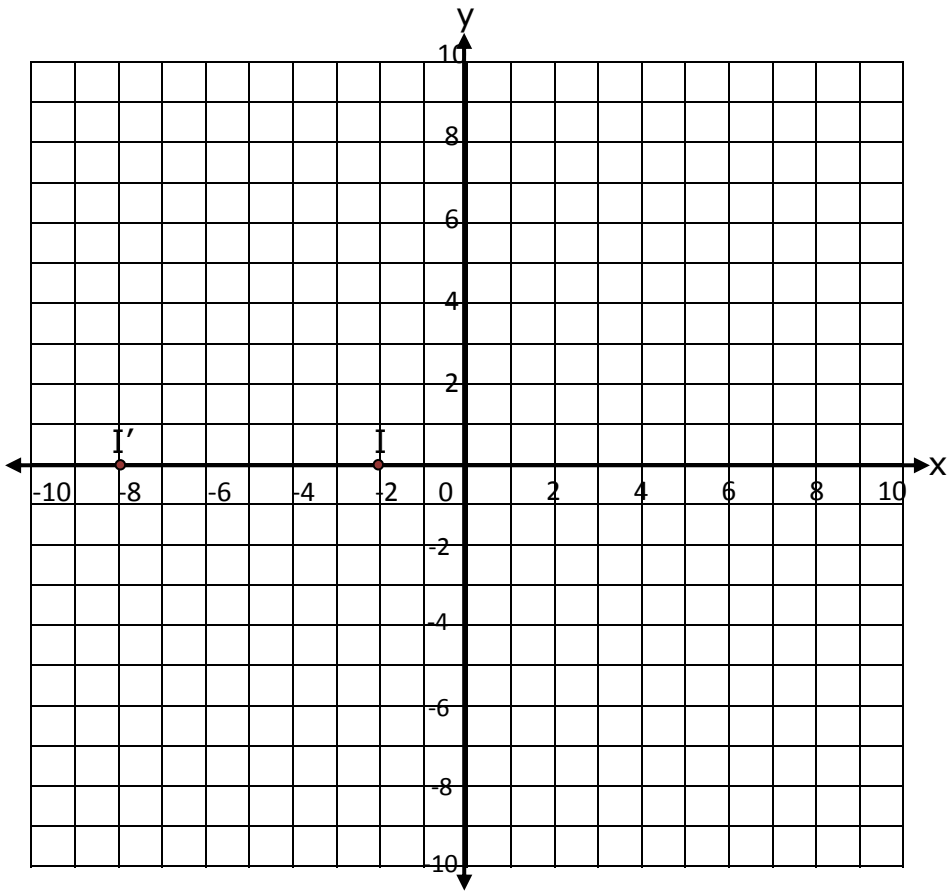
Explanation # 2

This dilation is centered at the origin, so you can find the image by multiplying the x- and y-coordinates by the scale factor.

Multiply the coordinates of point I (-2, 0) by 4.

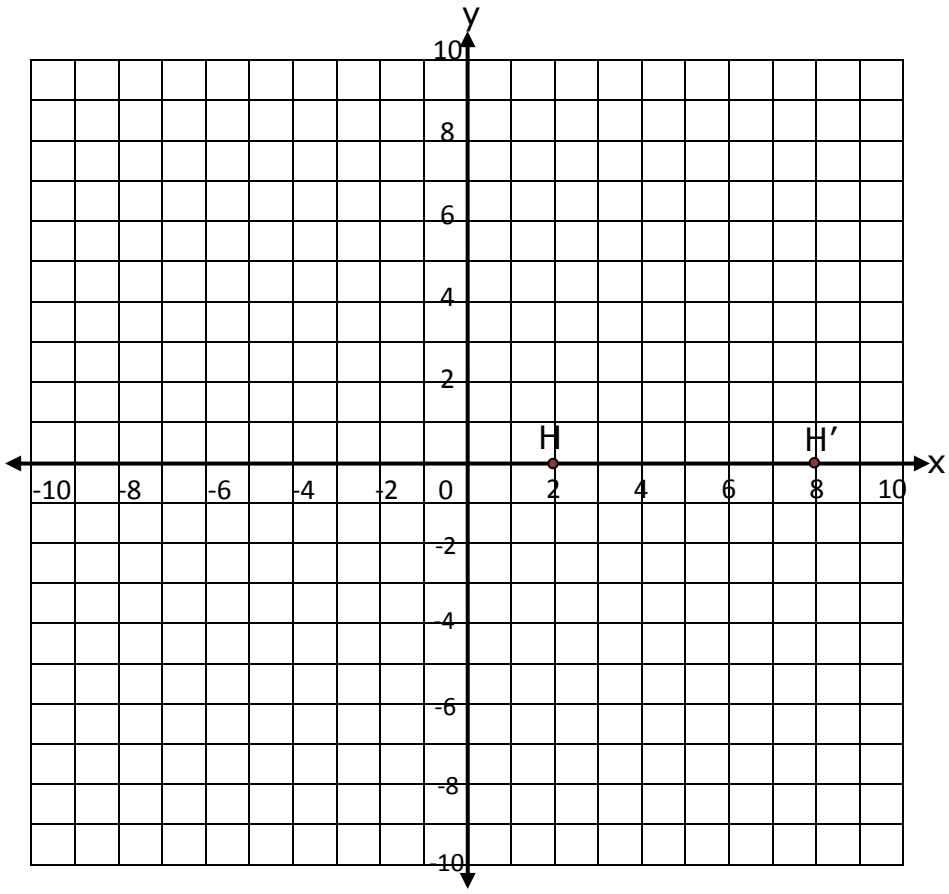
The image is I'(-8,0).

Name _____ Date _____



Now multiply the coordinates of point H (2, 0) by 4. The image is H'(8,0).

Name _____ Date _____

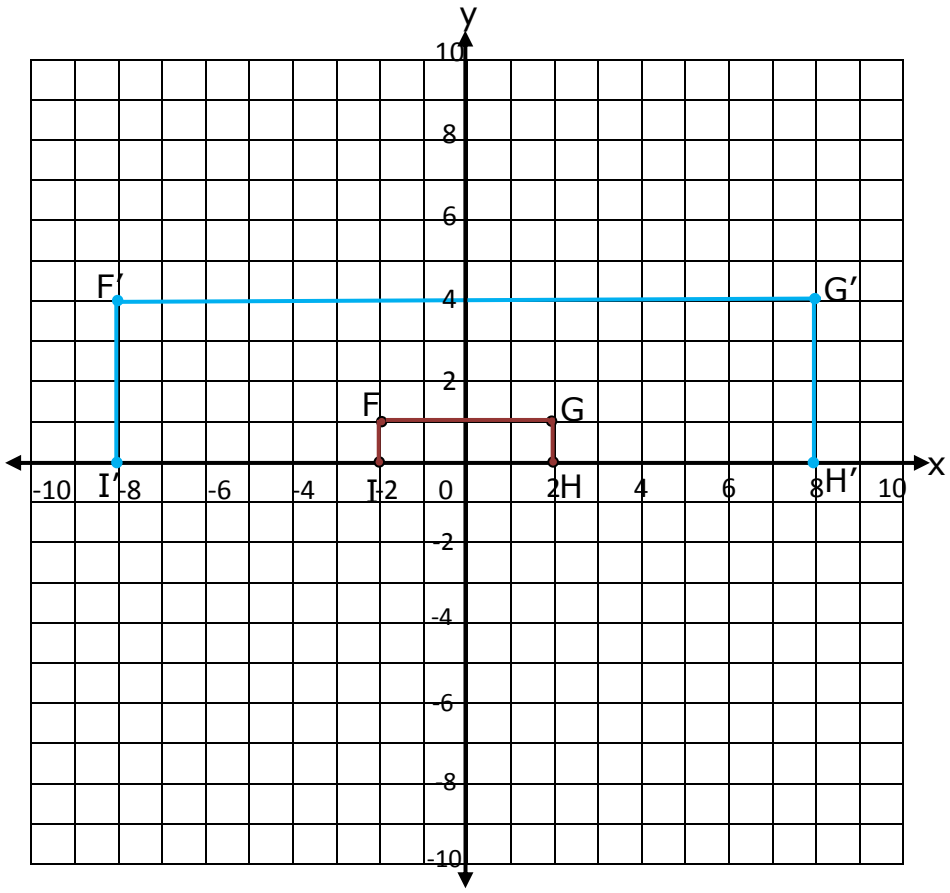


Now multiply the coordinates of points F(-2,1) and G(2,1) by 4.

The images are F'(-8, 4) and G'(8, 4).

The dilated points form a rectangle similar to FGHI.

Name _____ Date _____



Explanation #3

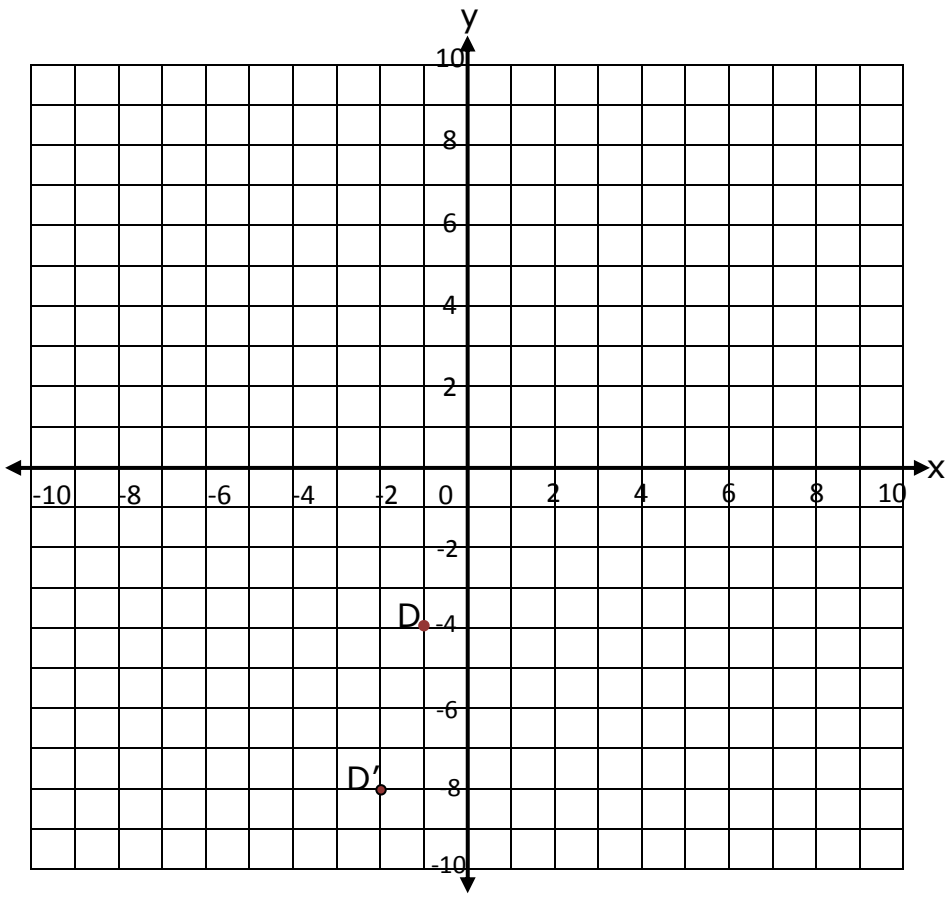
Step 1) First we have to see what we have find out.

Step 2) This dilation is centered at the origin, so you can find the image by multiplying the x- and y-coordinates by the scale factor.

Multiply the coordinates of point D(-1,-4) by 2.

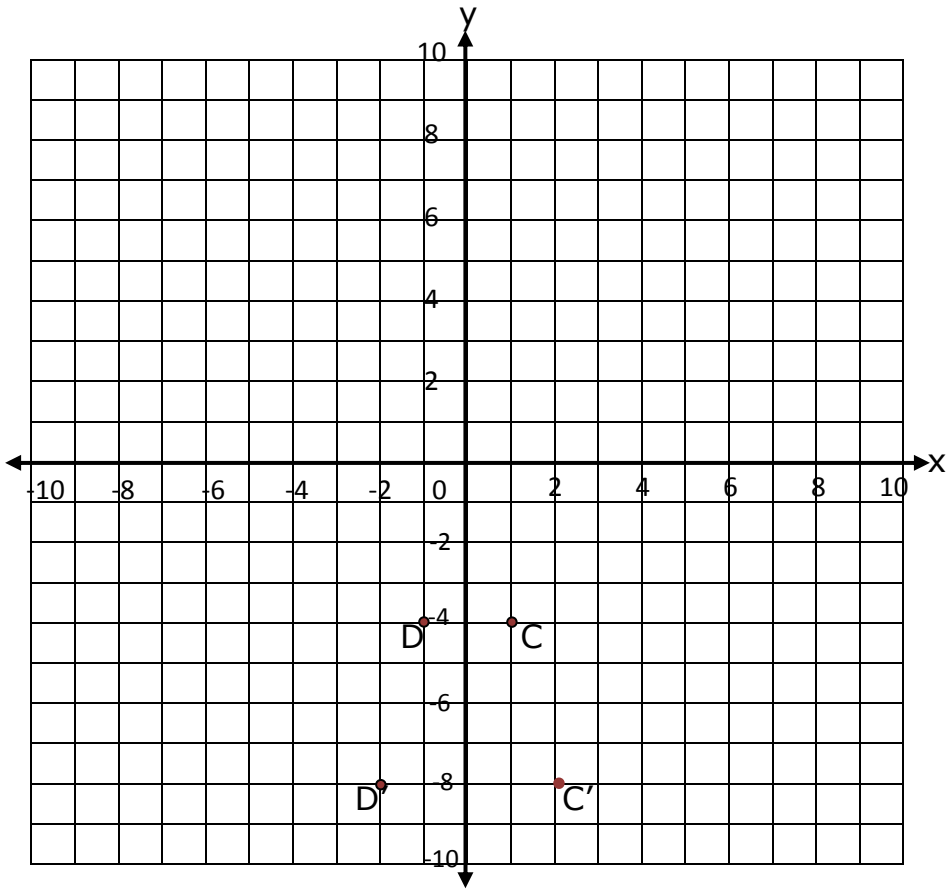
The image is D'(-2,-8).

Name _____ Date _____



Now multiply the coordinates of point C(1,-4) by 2. The image is C'(2,-8).

Name _____ Date _____



Now multiply the coordinates of points A(-1, -1) and B(1,-1) by 2.

The images are A'(-2, -2) and B'(2, -2).

The dilated points form a rectangle similar to ABCD.

Name _____ Date _____