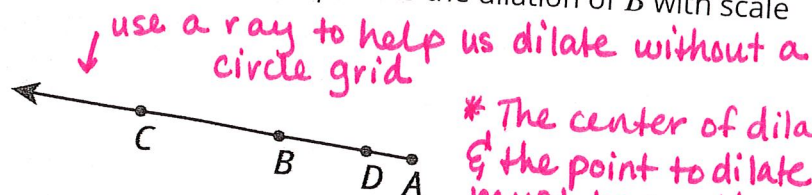


Unit 2 Lesson 3 Summary

If A is the center of dilation, how can we find which point is the dilation of B with scale factor 2?



Since the scale factor is larger than 1, the point must be further away from A than B is, which makes C the point we are looking for. If we measure the distance between A and C , we would find that it is exactly twice the distance between A and B .

A dilation with scale factor less than 1 brings points closer. The point D is the dilation of B with center A and scale factor $\frac{1}{3}$.

* Dilations must have a ^① center of dilation, a ^② point to dilate, and a ^③ scale factor.

* The center of dilation cannot be between the original point & its image.

* If the scale factor is 1, the point does not move.

* To dilate a polygon, dilate each vertex, then connect the vertices of the image to make the dilated shape.

* Scale Factor > 1 image gets bigger (farther from center of dilation)

* Scale Factor < 1 image gets smaller (closer to center of dilation)

Steps to Dilate

- ① Draw a ray from center of dilation through the point you want to dilate.
- ② Measure the distance from center of dilation to the point.
- ③ Multiply this distance by the scale factor.
- ④ Measure this new distance from center of dilation & mark the image point on the ray.

Ex:

scale factor = 2

