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**Making a Map Projection: Analysis & Reflection**

1. Look at your flat map, especially the size and distance of the circles.

* Are the circles all still the same size as they were when the map was three-dimensional? If not, can you find regions on your map where the circles are still the same size? (Remember, all circles were the same size on the globe!)
* If changes occurred, use your understanding of map projections to explain why the circles changed.

2. Are the circles still the same distance from each other? (Remember, the circles on the equator were equidistant from each other; so were the circles between the equator and each pole!) Also, the circles in the northern and southern hemispheres were drawn midway between the equator and each pole. Is this still the case on your map?

3. Look at your flat map again, now concentrating on the shapes of the circles. Do all of the circles still look like circles? Describe what you see.

4. Compare and contrast the photograph of your three-dimensional globe and your flat map.

* Do your observations indicate distortions in your map? (Remember that you started with circles that were all equal in size!)
* Consider our discussion about the distortions on the Mercator and Equal Area projections. Explain how this visual activity confirms that a three-dimensional world can never be represented on a two-dimensional surface without distortion.